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Report No: PAD2403

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT PAPER

ON A

PROPOSED ADDITIONAL LOAN

IN THE AMOUNT OF US\$170 MILLION

TO THE

REPUBLIC OF THE PHILIPPINES

FOR THE

PHILIPPINE RURAL DEVELOPMENT PROJECT

December 12, 2017

Agriculture Global Practice  
East Asia and Pacific Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective October 31, 2017)

Currency Unit = Philippine Peso - PhP  
PhP 51.63 = US\$1

## FISCAL YEAR

January 1 – December 31

## ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
AFMP	Agriculture and Fisheries Modernization Plan
ARMM	Autonomous Region in Muslim Mindanao
BCR	Benefit-Cost Ratio
COA	Commission on Audit
CPF	Country Partnership Framework
DA	Department of Agriculture
DesA	Designated Account
DPWH	Department of Public Works and Highways
EIRR	Economic Internal Rate of Return
ESMF	Environment and Social Management Framework
ESMP	Environment and Social Management Plan
ESSF	Environmental and Social Safeguards Framework
eVSA	Expanded Vulnerability and Suitability Assessment
FM	Financial Management
FMR	Farm-to-Market Road
FS	Feasibility Study
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
GRS	Grievance Redress Service
IBRD	International Bank for Reconstruction and Development
IP	Indigenous Peoples
IPM	Integrated Pest Management Framework
KII	Key Informant Interview
LA	Loan Agreement
LGU	Local Government Unit
M&E	Monitoring and Evaluation
MIS	Management Information System

MPA	Marine Protected Area
MRDP	Mindanao Rural Development Program
NCB	National Competitive Bidding
NEDA-ICC	National Economic Development Authority – Investment Coordination Committee
NPAB	National Project Advisory Board
NPCO	National Project Coordination Office
NPV	Net Present Value
O&M	Operation and Maintenance
PAD	Project Appraisal Document
PCIP	Provincial Commodity Investment Plan
PDO	Project Development Objective
PDP	Philippine Development Plan
PG	Proponent Group
PP	Procurement Plan
PPMIU	Provincial Project Management and Implementation Unit
PRDP	Philippine Rural Development Project
PSO	Project Support Office
PWS	Potable Water System
RAEB	Rapid Appraisal of Emerging Benefits
RF	Results Framework
RFO	Regional Field Office
RPAB	Regional Project Advisory Board
RPCO	Regional Project Coordination Office
RIA	Road Influence Area
SES	Social and Environmental Safeguards
VCA	Value Chain Analysis
WB	World Bank

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**PHILIPPINES  
ADDITIONAL FINANCING FOR THE  
PHILIPPINE RURAL DEVELOPMENT PROJECT**

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## ADDITIONAL FINANCING DATA SHEET

*Philippines*

*Philippine Rural Development Project Additional Financing (P161944)*

*EAST ASIA AND PACIFIC*

*Agriculture Global Practice*

Basic Information – Parent									
Parent Project ID: P132317				Original EA Category: B - Partial Assessment					
Current Closing Date: 31-May-2021									
Basic Information – Additional Financing (ADDITIONAL FINANCING)									
Project ID: P161944				Additional Financing Type (from AUS): Cost Overrun, Scale-Up					
Regional Vice President: Victoria Kwakwa				Proposed EA Category:					
Country Director: Mara K. Warwick				Expected Effectiveness Date: 28-Feb-2018					
Senior Global Practice Director: Juergen Voegelé				Expected Closing Date: 31-May-2021					
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Responsible Agency: Department of Agriculture									
Project Financing Data - Parent (Philippine Rural Development Project-P132317) (in USD Million)									
Key Dates									
Project	Ln/Cr/TF	Status	Approval Date	Signing Date	Effectiveness Date	Original Closing Date	Revised Closing Date		
P132317	IBRD-84210	Effective	29-Aug-2014	08-Sep-2014	03-Dec-2014	31-May-2021	31-May-2021		
Disbursements									
Project	Ln/Cr/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P132317	IBRD-84210	Effective	USD	501.25	501.25	0.00	148.17	353.08	29.56

Project Financing Data - Additional Financing (Philippine Rural Development Project Additional Financing - P161944) (in USD Million)			
<input checked="" type="checkbox"/>	Loan	<input type="checkbox"/>	Grant
<input type="checkbox"/>	Credit	<input type="checkbox"/>	Guarantee
<input type="checkbox"/>		<input type="checkbox"/>	Other
Total Project Cost:	212.50	Total Bank Financing:	170.00
Financing Gap:	0.00		
Financing Source – Additional Financing (ADDITIONAL FINANCING)			Amount
Borrower			42.50
International Bank for Reconstruction and Development			170.00
Total			212.50
Policy Waivers			
Does the project depart from the CAS in content or in other significant respects?			No
Explanation			
Does the project require any policy waiver(s)?			No
Explanation			
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<b>Locations</b>					
<b>Country</b>	<b>First Administrative Division</b>	<b>Location</b>	<b>Planned</b>	<b>Actual</b>	<b>Comments</b>
Philippines	Autonomous Region in Muslim Mindanao				
Philippines	Bicol				
Philippines	CARAGA				
Philippines	Cagayan Valley				
Philippines	CALABARZON				
Philippines	CAR				
Philippines	Central Luzon				
Philippines	Central Visayas				
Philippines	Davao Region				
Philippines	Eastern Visayas				
Philippines	Ilocos Region				
Philippines	MIMAROPA				
Philippines	Northern Mindanao				
Philippines	SOCCSKSARGEN				
Philippines	Western Visayas				
Philippines	Zamboanga Peninsula				
<b>Institutional Data</b>					
<b>Parent (Philippine Rural Development Project-P132317)</b>					
<b>Practice Area (Lead)</b>					
Agriculture					
<b>Additional Financing (Philippine Rural Development Project Additional Financing-P161944)</b>					
<b>Practice Area (Lead)</b>					
Agriculture					
<b>Contributing Practice Areas</b>					
Consultants (Will be disclosed in the Monthly Operational Summary)					
Consultants Required? Consultants will be required					

## I. Introduction

1. **This Project Paper seeks the approval of the Executive Directors to provide an additional loan in the amount of US\$170 million to the Republic of the Philippines for the Philippine Rural Development Project (PRDP).** This is proposed as an initial response to the US\$450 million request from the Philippine Government for the expansion of the Philippine Rural Development Project.

2. **The Additional Financing (AF) is sought to finance the strong demand from Local Government Units (LGUs) for rural infrastructure support under PRDP, especially farm-to-market roads (FMRs).** It would also provide for the increased construction costs due to a Government decision early in the implementation of the PRDP that all roads should be constructed of concrete. The Additional Financing request from Government amounts to US\$450 million and is based on a pipeline of sub-projects requested for project support by LGUs. The strong demand for infrastructure support under the project has resulted in all available loan funds for project component 2 (Infrastructure Development) committed to specific sub-projects (design approved) in the third year of implementation of this six-year project. The proposed Additional Financing would accommodate additional demands from LGUs that are anticipated over the period of 18-20 months. Further financing could be considered subsequently in response to the overall Government's request, based on continued strong performance and financing needs of the project.

3. **The Additional Financing would continue to support rural infrastructure investments in line with the project's development objective (PDO) and expected impacts, and provide financing for some of the country's LGUs that have yet to avail of investments under the project, in keeping with PRDP's intended nation-wide coverage.** A portion (13%) of the AF would be allocated to support the scaled-up oversight and capacity building requirements of the project, and the institutional mainstreaming of the new approaches, tools and functions developed under PRDP, across all agencies and units of the Department of Agriculture.

4. The proposed AF includes some restructuring, specifically: (i) the AF corrects the wording of the Project Development Objective to align it with the wording in the original loan agreement by dropping 'by supporting smallholders and fisher folk to increase their marketable surpluses, and their access to markets' from the original PDO wording in the Project Appraisal Document (PAD); (ii) the AF includes some revisions of the Results Framework (RF) indicators which aim to propose better measurable indicators to capture the substantial institutional reforms under the project, reflect the strong demand for farm-to-market roads *vis-a-vis* other rural infrastructures, and incorporate lessons from the existing project; and (iii) the AF will also include revisions to component cost, disbursement estimates and other adjustments. The AF does not trigger any new safeguard policies.

## II. Background for Additional Financing

5. **Country Context.** The Philippines is a lower middle income country with a population of about 100 million people. The Philippine economy grew at an average of 6.3 percent between 2011 and 2016 and is projected to grow at 6.9 percent in 2017 and 2018. Some 1.8 million Filipinos were lifted from poverty between 2012 and 2015, surpassing the government targets. The proportion of the population living in poverty fell from 25.2 to 21.6 percent over the period 2012-2015, a rate of roughly 1.2 percentage points annually. Improved incomes and a higher employment rate were the key drivers of the reduced poverty incidence in the Philippines, helped by a generally stable inflation environment. Based on the 2015 Family Income and Expenditure Survey, household per capita incomes in the Philippines increased for all income deciles between 2012 and 2015. Despite this solid economic performance, some 55 percent of the Philippine population live in rural areas where poverty rates remain high with nearly 38.2 percent of the rural population classified as poor and rural incomes are much lower than urban ones. Farmers and fisher folk are the poorest among the basic sector groups.



6. A compounding factor in the economic development of the Philippines is that it is among the most vulnerable countries to climate variability and change, and is already feeling its impacts. The country comprises some 7,100 islands in the Pacific typhoon belt. It has a total discontinuous coastline of 32,400 kilometers, making it especially vulnerable to a wide range of hydro-meteorological hazards including typhoons, floods, droughts, sea-level rise and landslides. The Philippines consistently ranks high on most global indices for vulnerability to climate change. Impacts from climate variability and change are already emerging with impacts on human lives and health, damaging livelihoods particularly among the poor, physical infrastructures, agriculture, and ecosystems.

7. **Sectoral and Institutional Context.** The non-agricultural economy has grown substantially faster than the agricultural sector, pushing the agricultural sector's share down to 11.3 percent of Gross Domestic Product in 2016 and lagging behind other Southeast Asian countries in terms of production and productivity growth. Yet, more than 30 percent of the country's population relies on agriculture for their livelihoods and employment. Agricultural growth has averaged 2 percent in 2011-2015, with some recent signs of higher growth. Apart from the country's frequent exposure to extreme weather events and its vulnerability to the impacts of climate change, the sector has been plagued by a number of challenges that have dampened its contribution to economic growth, job creation, and poverty reduction.

8. A major contributing factor to the low productivity, pervasive poverty in rural areas and the weak competitiveness of agricultural commodities, has been the poorly developed infrastructure for transport, particularly all-weather farm-to-market roads, ports, and inter-island shipping. The resultant inaccessibility, high transport and freight costs, and post-harvest losses have been major constraints. About half of all rural villages lack all-weather access to market outlets. The spread of modern agricultural technology has also been constrained by a weak extension system and the high cost of inputs, weak producer organizations, inefficient supply and logistic systems, limited access to finance, and lack of clear property rights.

9. Since 2013, the Philippines has undertaken significant steps to address the constraints that have long been at the heart of the low agricultural productivity. Notably, the Department of Agriculture (DA), which is the lead agency responsible for agriculture and broader rural development, is aiming to transition from a centralized institution to more devolved functions and working in partnership with LGUs. National agricultural strategies are now integrated with local level plans and investment priorities. Sector investment plans and priorities are subjected to broader stakeholder consultation, and investments are cost-shared between DA and LGUs. This has contributed significantly to strengthening cost-effectiveness, local ownership and sustainability of investments.

10. Technical innovations and new ways of doing business have been introduced to raise productivity of key commodities, and to increase rural incomes and employment. Key among these, and with the support of PRDP, have been the development and application of technical tools to determine the climatic vulnerability and edaphic suitability of areas for investment in key commodities, and the type of investments needed to strengthen market linkages and value addition, particularly for small producers. Underpinning this, technical assistance is now more effectively targeted, as is construction of all-weather road access linking production areas to markets. These significant reforms would be further enhanced through the AF for PRDP.

11. **Relationship to the CPF.** The PRDP provides a major engagement in supporting institutional reform and promoting growth in the rural economy. The proposed additional financing is fully consistent with the World Bank Group's Country Partnership Strategy (2015-2019) for the Philippines (Report No. 78286-PH) which identified the promotion of rapid, inclusive and sustained economic growth as one of its goals. The project also contributes to the World Bank Group's twin goals of ending poverty and boosting shared prosperity by targeting investments in the agriculture sector which represents the major source of

livelihood and employment in the rural areas. It also fosters partnerships in productive investments between farmers' groups and commercial buyers, along agricultural supply chains that would contribute to improved market access and higher income opportunities for all.

12. The additional financing is also aligned with the Philippine Development Plan's (PDP) (2017-2022) objective on developing a competitive, sustainable, and technology-based agricultural sector that would contribute to inclusive growth and poverty reduction. It is further aligned with the administration's Ten-Point Socio-Economic Agenda, specifically on promoting rural and value chain development toward increasing agricultural and rural enterprise productivity, and on ensuring security of land tenure to encourage investments. The project also contributes to the sector outcomes of PDP Chapter 8 (Expanding Economic Opportunities in Agriculture, Forestry and Fisheries).

13. **Financing.** The PRDP constitutes of US\$501.25 million loan financing from the World Bank, amounting to around 75% of total project costs along with a Global Environment Facility (GEF) grant of US\$7 million. Counterpart funding of US\$163.34 million is financed by the Government through the Department of Agriculture, Local Government Units, and the private sector. The project became effective December 3, 2014 and is being implemented by the Department of Agriculture over a six-year period with a closing date of May 31, 2021.

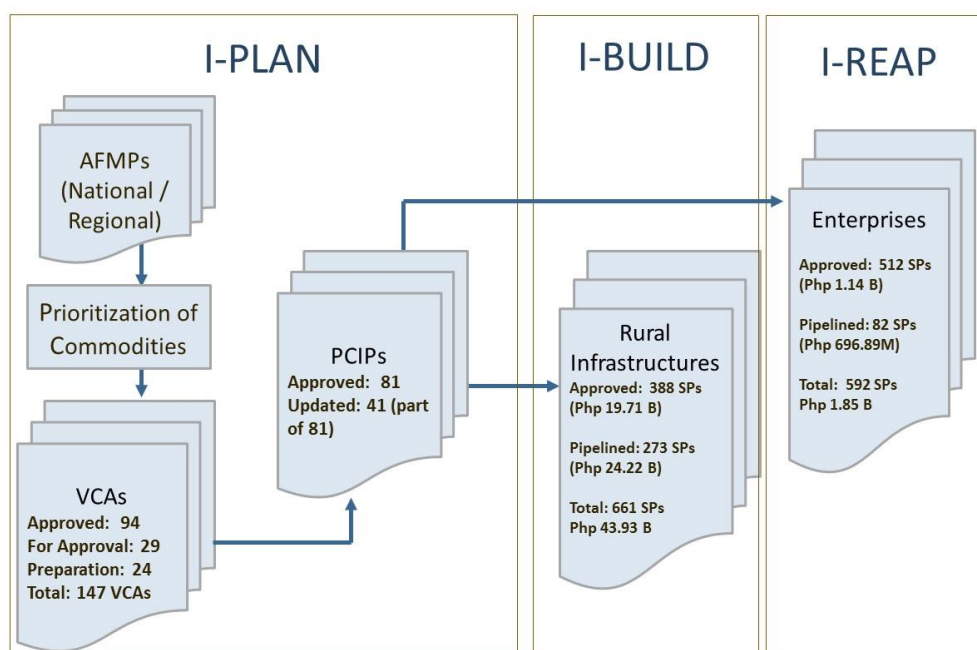
14. **Project Development Objective (PDO).** The PDO is to increase rural incomes and enhance farm and fishery productivity in the targeted areas. The project supports smallholders and fisher folk to increase their marketable surpluses, and their access to markets. Specific PDO indicators are to achieve (i) increase in real household incomes of farmer beneficiaries; (ii) increase in income of beneficiaries involved with enterprise development; (iii) increase in value of annual marketed outputs; and (iv) increase in the number of farmers and fishers with improved access to DA services. PRDP was intended to have national coverage, designed to cover all 81 provinces of the country. It builds on earlier World Bank support, beginning in 1999, of two Mindanao Rural Development Programs (MRDP I and II) which contributed to development and consensus underpinning many of the institutional, technical, and procedural reforms being implemented under PRDP.

15. Achievement of the PDO indicators is reached through four interlinked project components: (i) Local and National Level Planning; (ii) Infrastructure Development; (iii) Enterprise Development; and (iv) Project Implementation Support. The planning component (I-Plan) provides the policy and institutional framework for determining the selection and type of infrastructure (I-Build) and enterprise investments (I-Reap), while the implementation support component (I-Support) provides for harmonization of procedures, capacity building, M&E, and implementation support. The AF would further consolidate progress toward achievement of the PDO. Specifically, this relates to the realignment of DA's focus to provide catalytic investments to spur economic development through rural infrastructure linked with support for value chain strengthening. This involves the clustering and vertical integration of small-scale producer groups with more developed cooperatives and associations involved in commodity consolidation, agro-processing and marketing. The purpose of this focus is to enhance the incomes and welfare of the large population of small-scale producers who hitherto have been too dispersed and/or limited in their marketable surplus to avail of rural credit, or to develop functional producer associations or cooperatives.

16. **Project Status.** The project has made good implementation progress with performance been consistently rated as Satisfactory or Moderately Satisfactory. Compliance with legal, fiduciary and safeguard requirements has been satisfactory. All provinces have indicated their desire to participate in the project through the development of Provincial Commodity Investment Plans (PCIPs). The PCIPs link national objectives, identified in the Agriculture and Fisheries Modernization Plan (AFMP), with regional strategic plans (Regional-AFMPs) and localized plans and priorities developed by LGUs. The types of interventions to be supported in the PCIPs are identified through Value Chain Analyses (VCAs). Currently,

the top five commodities in terms of financing being supported under the project are coconut, banana, rubber, coffee, and cacao. Some 75 provincial LGUs have proposed sub-projects for financing under the project based on PCIPs. These currently encompass a substantial portfolio of 661 infrastructure sub-projects and 592 enterprise sub-projects (see Box 1).

**Box 1. Inter-linkages between Planning Reforms, Infrastructure, and Enterprise Sub-projects**  
(as of November 17, 2017)



17. **Significant institutional reforms have been introduced that are increasingly being mainstreamed across DA units and agencies - consistent with the longer-term strategy of sustaining the benefits of the PRDP after project completion.** Key among these reforms are: (i) DA agricultural support now provides for planning that links national strategic objectives with regional and local level plans and strategies; (ii) implementation of programs and investments designed to stimulate the rural economy are now done in partnership with LGUs, i.e. LGUs have become the implementers and owners of the investments, consistent with the LGU Code (1991), with DA providing technical support and cost-sharing of investments; (iii) Value Chain Analyses (VCAs) and expanded Vulnerability and Suitability Assessments (eVSA) are providing the technical basis for investment support; (iv) standardized investment criteria, technical specifications and procedures for implementing infrastructure and enterprise development are being implemented; and (v) PCIPs are increasingly being institutionalized and becoming a part of regular LGU investment planning<sup>1</sup>. They are designed as three-year rolling plans. PCIPs also provide a mechanism for leveraging complementary support (convergence) with other government agency programs and private sector initiatives. To this point, 70 provincial LGUs have reported leveraging PhP8 billion (approx. US\$115 million), while another PhP 36 billion is proposed for funding with various agencies, in addition to PRDP support.

18. **Strengthened governance along with the tools and processes developed under the project are also being institutionalized.** Key elements of the project's governance structures are: (i) a comprehensive Management Information System (MIS) linked with geo-referenced data. The web-based system is fully

<sup>1</sup> PCIPs collectively include commodity investment plans prepared by cities, referred to as City Commodity Investment Plans.

operational and can be considered best-practice. It provides for a real time registry and tracking of the project's progress across project areas, traces actual pace of interventions/activities against prescribed timelines, and enables on-demand generation of reports; (ii) Geo-Tagging is being used for sub-project identification, validation, procurement, monitoring, and supervision and operation and maintenance; (iii) a web-based Document Tracking System is operational through which the National Project Coordination Office (NPCO), Project Support Offices (PSOs) and Regional Project Coordination Offices (RPCOs) can trace the phasing and flow of all documents; (iv) a citizens monitoring system for infrastructure construction provides a checklist and feedback mechanism through which beneficiaries of infrastructure investments can participate in the monitoring of contractor performance; (v) a Grievance Redress System (GRS) is accessible online (da.prdp.net) providing information on the nature of the grievance and the status; and (vi) an application mapping all PRDP sub-projects nation-wide and can be freely accessed. The following indicator from the GRS - "Grievances registered in the project's grievance redress system addressed" - will be used to monitor citizen engagement.

**19. Rural infrastructure investments under the project are supporting the priority commodity value chains identified through the PCIP processes.** Some 388 rural infrastructure sub-projects have so far been approved for financing. Of these, 232 are Farm-to-Market Roads (FMRs) and bridges with a total length of 1,700 km. To this point, 59 sub-projects are completed (48 FMRs with 148 km, two potable water systems (PWS), and nine other infrastructures) with an estimated 52,838 direct beneficiary households and 203 sub-projects are under implementation. One-hundred post-harvest facilities have been approved for construction and two are completed. Twelve small-scale irrigation facilities have been approved encompassing 756 ha of which one sub-project of 100 ha is under construction.

**20. Rural enterprise investments are supporting the development of agricultural, livestock and fishery-based entrepreneurial activities, based on value chains analyses and the identified priorities in the PCIPs.** This has proved to be the most challenging aspect of the project, as it requires new ways of doing business, substantial documentation, and significant business evaluation capabilities of DA and LGU staff, and the proponent groups. Detailed Operational Manuals have been developed to guide the process and specific action plans have been developed to assist those LGUs lacking capacity. To date, 512 enterprise sub-projects have been approved totaling PhP 1.14 billion of which 94 are completed. These sub-projects will benefit 708 proponent groups involving some 96,050 direct beneficiaries, of whom 45 percent are women. To date, micro enterprises account for most of the financing 52% (<PhP 3 million each), small enterprises 36% (PhP 3-15 million each) and medium-scale enterprises 12% (PhP 15-50 million each).

**21. Coastal and fishery resource management is being supported in six sites through GEF financing and encompasses 33 Marine Protected Areas (MPAs).** It provides for (i) enhancing institutional and planning capacities of coastal LGUs and communities; (ii) support to MPAs in areas of global biodiversity significance and select fishery management arrangements; and (iii) sharing of knowledge and best practices. Marine Protected Area Action Plans have been prepared for all 33 sites which encompass seven Provincial LGUs and 22 Municipal LGUs. Biodiversity conservation and coastal resources co-management features have been incorporated in six of the seven relevant PCIPs. MPA proposals are approved and ready for funding. Some 35 GEF micro enterprise sub-projects (<PhP 5 million each), designed to provide sustainable alternative sources of income for fisher-folk and for the protection of identified marine protected areas, are at various levels of review and approval (and one started implementation).

### **III. Rationale for the Additional Financing**

**22. The Additional Financing is sought to finance the strong and expanding demands from LGUs for rural infrastructure support under PRDP, for which a pipeline of sub-projects already exists that**

**formed the basis of the Government's request for US\$450 million of additional financing<sup>2</sup>.** This strong demand stems from both the past under-investment and piecemeal approach to supporting FMRs. In contrast, the approach adopted under the project allows LGUs to take a longer-term view. Under the PRDP, LGUs can develop multi-year plans for rural infrastructure enabling links with broader provincial development goals<sup>3</sup>. However, all funds available for infrastructure development (component 2) under the project have been assigned to specific approved sub-projects and no additional infrastructure sub-projects can be supported under the project. Some LGUs have yet to avail of financing for investments under the project and road construction costs have increased due to a Government decision, shortly after project approval, requiring all farm-to-market roads to be built with concrete. This increased FMR construction costs to an average of PhP 11 million per km of road constructed (from around PhP5 million per km).

23. The proposed AF would be provided to accommodate additional demands from LGUs anticipated over the next 18-20 months' period (estimated to amount to approx. US\$170 million). Further additional financing could be provided at a later stage, based on continued strong performance and financing needs, and in line with Government's original request for an overall financing expansion of US\$ 450 million<sup>4</sup>.

24. **The proposed scaling-up of activities to be supported through the AF would broaden the development impact of the project and can be implemented effectively.** In terms of impact, the importance of improving rural access has been well established as a key factor for the Philippines in raising rural incomes, creating jobs, raising agricultural productivity, value addition, and contributing to peace and security in rural areas. This has been further confirmed through impact assessments already done for completed FMRs under the project (Annex 4). The cost-effectiveness of these FMR investments also substantially improved through the project, with significant reforms in: (i) the selection and prioritization of FMRs based on strict criteria as to their connectivity with markets and other main roads; (ii) map-overlays and geo-tagging to optimize which routes are supported and to enhance governance; (iii) construction of longer, complete road sections; (iv) use of climate-proofed construction standards and enhanced quality of supervision; (v) strict adherence to procurement and safeguard requirements; and (vi) strengthened operations and maintenance.

25. DA has the technical and administrative capacity in place to support an expanded project, a reflection of the strong Government commitment for the approach and objective of the project<sup>5</sup>. The AF would enable this capacity and focus to be sustained, avoiding the redeployment of staff and supporting the further consolidation of institutional reforms in DA. Without the resources to make further commitments to fund infrastructure sub-projects, the uncertainty of funding is constraining LGUs to allocate their scarce resources to undertake the detailed survey, design, feasibility, and safeguard analyses needed to prepare

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<sup>2</sup> See Annex 6.

<sup>3</sup> Decisions for FMRs in the past were often influenced by politically determined priorities and poor processes and standards. Many FMRs were of short lengths (<1km) with inadequate attention to market access or establishment of road network linkages. Construction standards were variable, often with little provision for operation and maintenance. The DA, with Bank support, has been instrumental in transforming the approach. The priority and justification for FMRs is now established through the PCIP process and technically justified through Value Chain Analysis (VCAs), road influence area calculations, geo-referencing, and map overlays. Road sections are longer, typically ranging from 7 to 10 km and linking production areas to markets. Through PRDP, LGUs can take a longer-term view and plan for rural infrastructure sub-projects in a more comprehensive manner and linked to provincial development goals.

<sup>4</sup> See Table 3 in Annex 3.

<sup>5</sup> There are currently 1,005 staff working nationwide for PRDP, consisting of 38 full time organic DA staff and 418 organic DA staff working on part-time basis and 549 contracted staff. Another 1,445 LGU staff (est.) are involved in the project's implementation through the Provincial Project Management and Implementation Units (PPMIUs). The AF would support sustaining this capacity by ensuring the availability of financing to maintain the momentum of operations and avoiding the redeployment of staff.

sub-projects. As this process typically takes 27 months, uncertainty of funding would likely result in a substantial slow-down in consolidating the improved planning and implementation of FMRs and other infrastructures. Importantly also, LGUs' engagement on infrastructure is integral to their willingness to also support the more institutionally challenging enterprise development activities under the project.

#### IV. Proposed Changes

The AF would provide financing for additional infrastructure sub-projects and provide support for the scaled-up oversight and capacity building requirements of the project, as well as the institutional mainstreaming of the new approaches, tools and functions developed under PRDP, across all agencies and units of the DA. Some adjustments in the results framework are proposed to better measure the substantial institutional reforms under the project, and to reflect the strong demand for farm-to-market roads <i>vis-a-vis</i> other forms of rural infrastructure.	
Change in Implementing Agency	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Change in Project's Development Objectives	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ]
Change in Results Framework	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ]
Change in Safeguard Policies Triggered	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Change of EA category	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Other Changes to Safeguards	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Change in Legal Covenants	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Change in Loan Closing Date(s)	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Cancellations Proposed	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Change in Disbursement Arrangements	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Reallocation between Disbursement Categories	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Change in Disbursement Estimates	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ]
Change to Components and Cost	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ]
Change in Institutional Arrangements	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Change in Financial Management	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Change in Procurement	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Change in Implementation Schedule	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ]
Other Change(s)	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ]
<b>Development Objective/Results</b>	
<b>Project's Development Objectives</b>	
Original PDO	
To increase rural incomes and enhance farm and fishery productivity in the targeted areas.	

<b>Change in Project's Development Objectives</b>
<p><b>Explanation:</b></p> <p>There was an inconsistency between the formulation of the Project Development Objective (PDO) in the original Project Appraisal Document (PAD) and the original Loan Agreement (LA). The PDO in the PAD was: “to increase rural incomes and enhance farm and fishery productivity in the targeted areas <i>by supporting smallholders and fisher folk to increase their marketable surpluses, and their access to markets</i>”, while the “by” part of the PDO was not included in the PDO formulation in the LA. The AF removes this inconsistency by dropping the latter part of the PAD PDO wording and making the project and legal documents fully consistent.</p>
<b>Proposed New PDO - Additional Financing (AF)</b>
The PRDP aims to increase rural incomes and enhance farm and fisheries productivity in the targeted areas.
<b>Change in Results Framework</b>
<p><b>Explanation:</b></p> <p>Some project indicators are proposed to be rephrased and/or adjusted to better capture project impacts and adjust targets where applicable. Adjustments are also made to accommodate new corporate results indicators. Targets have been updated to include the AF supported activities.</p> <p><i>PDO Indicator Change:</i> Increase in number of farmers and fishers with improved access to DA services. Proposed Revision: Farmers reached with agricultural assets or services. This is revised to align with the wording of the corporate results indicator.</p> <p><i>Intermediate Indicator Changes:</i></p> <p><i>New Indicators:</i></p> <p>Roads constructed. This is a corporate results indicator and captures the km of road being constructed. The project will also capture the km of road being rehabilitated.</p> <p>Reduction in transport costs of roads linking production areas to markets. It is proposed to add an indicator measuring the reduced real transport and hauling costs of FMRs under the project. Based on early impacts, reduction in transport costs contribute substantially to increased opportunities for marketing agriculture products.</p> <p>Provincial Commodity Investment Plans (PCIPs) being used by Provinces as a platform for leveraging additional resources and convergence. This indicator captures the significant institutional strengthening that has come with the devolved partnerships between the DA and LGUs for investments in value chain strengthening for key commodities and of the support this has attracted from other NGAs, bilateral and multilateral donors and the Private Sector.</p> <p>Provincial Commodity Investment Plans using enhanced climate risk and resilience criteria to identify and prioritize investments. This reflects the proposed integration of climate considerations into the updating of PCIPs.</p> <p>Members of proponent groups operating viable enterprises. This indicator is proposed to replace (Increased Producer Groups participating in vertically linked commodity value chain clusters). Unit of measure would be number and not percentage. The indicator would measure the number of proponent group members that are directly benefitting from enterprise support under the project. Smallholder will be removed from the indicator description. Assumption is that about 75% of sub-projects would be viable.</p>

Women directly benefitting from enterprises. This is an addition to the indicator above to provide more information on participation of women.

Grievances registered in the project's grievance redress system addressed. This indicator is added to document the project's citizen engagement. This is being monitored as part of the project's safeguards.

*Reformulated Indicators:*

Enhanced Planning Programming & Budget Guidelines being effectively mainstreamed (across DA programs) - Proposed reformulation: Specific area-based Integrated Plan, Program and Budget for Technical Service Delivery being implemented. The original indicator had two measurements (number of regions and number of agencies) which is clarified with the proposed revision.

Improved road networks linking production areas with markets, leading to reduction in travel time by at least 30% at end of the project. Proposed reformulation: Reduction in travel time. This is to align with corporate results indicators.

Area provided with irrigation and drainage services. The targets have been adjusted. The original targets were based on an assumed substantially larger demand for irrigation. Irrigation now only constitutes a small amount of the infrastructure investments of the project.

Harmonized Operational Manuals mainstreamed for Local and National Planning, Program Support, Infrastructure and Enterprise. Proposed reformulation: PRDP's enhanced operational procedures, standards and tools for Local and National Planning, Program Support, Infrastructure and Enterprise support mainstreamed across DA agencies. Reformulation is to clarify the intention of the indicator.

*Indicators proposed to be dropped:*

PCIP interventions being supported through effective technical backstopping. While sub-component 1.2 will play a role to spearhead institutional agreements between LGUs, DA agencies and others, the measurement in the RF, based on number of provinces, may not reflect if the indicator has been achieved. As this is a small activity under the project, the indicator is proposed to be dropped to simplify the RF (not reflected in RF).

Increased producer groups and fisher resilience to climate change and adverse weather conditions. Instead of this indicator, an indicator was added on climate change consideration in PCIPs.

Efficient project implementation, reporting and loan utilization. It is proposed to drop this indicator from the RF as this is part of regular good project management practices and is already captured in other reports (not reflected in RF).

**Compliance**

**Covenants - Additional Financing (Philippine Rural Development Project Additional Financing - P161944)**

Source of Funds	Finance Agreement Reference	Description of Covenants	Date Due	Recurrent	Frequency	Action
IBRD	Section I.A.4 of Schedule 2	Annual Work and Financial Plan		<input checked="" type="checkbox"/>	Yearly	New
IBRD	Section I.A of Schedule 2	Maintain Implementation Arrangements		<input checked="" type="checkbox"/>	Continuous	New
IBRD	Section I.A. of Schedule 2	Planning guidelines		<input checked="" type="checkbox"/>	Continuous	New



IBRD	Section I.A.5 of Schedule 2	Unified and integrated platform of publicly accessible, geo-tagged and geo-mapped records of all Sub-projects		<input checked="" type="checkbox"/>	Continuous	New
IBRD	Section I.C of Schedule 2	Due Diligence and contractual arrangement for Sub-project financing		<input checked="" type="checkbox"/>	Continuous	New
IBRD	Section I.B of Schedule 2	Safeguard Requirement Standards		<input checked="" type="checkbox"/>	Continuous	New
IBRD	Section III of Schedule 2	Compliance with 2011 Procurement and Consultants Guidelines		<input checked="" type="checkbox"/>	Continuous	New
Risk						
Risk Category				Rating (H, S, M, L)		
1. Political and Governance				Substantial		
2. Macroeconomic				Moderate		
3. Sector Strategies and Policies				Moderate		
4. Technical Design of Project or Program				Moderate		
5. Institutional Capacity for Implementation and Sustainability				Substantial		
6. Fiduciary				Substantial		
7. Environment and Social				Moderate		
8. Stakeholders				Substantial		
9. Other						
OVERALL				Substantial		
Finance						
Loan Closing Date - Additional Financing (Philippine Rural Development Project Additional Financing - P161944)						
Source of Funds			Proposed Additional Financing Loan Closing Date			
International Bank for Reconstruction and Development			31-May-2021			
Change in Disbursement Estimates (including all sources of Financing)						
Explanation:						
Current loan disbursements are US\$148 million, around thirty percent of the World Bank Loan. At the project onset, disbursements were estimated to pick-up faster, but did not sufficiently account for the length of time needed for the formulation and approval of infrastructure and enterprise sub-projects. The revised disbursement estimates take the preparation time into account while also recognizing that processes are expedited as implementation experience is gained and more sub-projects are scheduled to be completed.						

Loan disbursements alone, however, do not fully reflect the project's financing and fund flow requirements. The apparent disconnect between disbursement figures and the need for additional financing at this stage is a result of Government procedures whereby funds allocated to a specific sub-project are obligated at the time of their initial approval. This is required as it signals to LGUs that funding will be available, and serves as security for LGUs to allocate resources to prepare detailed engineering designs and to obtain the necessary safeguard and procurement clearances and request for inclusion of the co-financing of the sub-project in the provincial budget planning. Once funds are obligated, Government procedures allow these to only be used for the assigned sub-project. The process from initial approval of infrastructure sub-projects through to completion takes on average around 27 months.

**Expected Disbursements (in USD Million) (IBRD only)**

Fiscal Year	2018	2019	2020	2021
Annual	8.50	50.00	73.20	38.30
Cumulative	8.50	58.50	131.70	170.00

**Allocations - Additional Financing (Philippine Rural Development Project Additional Financing - P161944)**

Source of Fund	Currency	Category of Expenditure	Allocation	Disbursement % (Type Total)
			Proposed	Proposed
IBRD	USD	(1) Goods, Non-consulting services, Consultants' Services, Training and Operating Costs for Parts 2.2 and 4 of the Project	22,000,000	100 % of amounts disbursed
		(2) Infrastructure Development Grants under Part 2.1 of the Project	148,000,000	100 % of amounts disbursed
		<b>Total:</b>	170,000,000	
LOCA	USD		42,500,000	0.00
		<b>Total:</b>	42,500,000	

**Components**

**Change to Components and Cost**

**Explanation:**

Component 2: Expanded Infrastructure Development. US\$ 148.0 million (87% of the AF). The specific sub-projects for support through the additional financing have largely been identified. Their selection is based on the prioritization criteria discussed below (see Other Changes). The majority of sub-projects would be FMRs, based on the continuing strong demand for these by LGUs. Some small-scale irrigation, warehouses, tramline, greenhouses etc. would also be supported (around 14% of funds under the component).

Component 4: Project Support. US\$22.0 million (13% of the AF). The AF would provide both, for the shortfall in funding allocated to this component for capacity strengthening, and project oversight, while also supporting further steps to expand and consolidate the institutional reforms and their mainstreaming across

DA Units and Agencies. The shortfall in financing for project implementation under the project stems from the Government's decision to set aside only about four percent of project costs, contrary to the Bank's appraisal recommendations. Given that the component also comprises essential activities beyond project management and provides support to all provinces, the level of funding provided has subsequently proven to be inadequate. The AF would bring the level of project support to 6.8 percent of Bank funding.

<b>Current Component Name</b>	<b>Proposed Component Name</b>	<b>Current Cost (US\$M) Bank Funding</b>	<b>Proposed Cost (US\$M) Bank Funding</b>	<b>Action</b>
Component 1: Local and National Level Planning	Component 1: Local and National Level Planning	14.30	14.30	No Change
Component 2: Infrastructure Development	Component 2: Infrastructure Development	393.70	541.70	Revised
Component 3: Enterprise Development	Component 3: Enterprise Development	68.00	68.00	No Change
Component 4: Project Implementation Support	Component 4: Project Implementation Support	24.00	46.00	Revised
	<b>Total:</b>	500.00	670.00	

#### **Other Changes**

<b>Implementing Agency Name</b>	<b>Type</b>	<b>Action</b>
Department of Agriculture		No Change

#### **Other Change(s)**

In addition to expanding the project's impact through the provision of additional rural infrastructure and strengthening support for project implementation, the AF would support the continued strengthening and consolidation of institutional reforms as described below:

- Institutional mainstreaming. The innovations developed under PRDP, particularly as these relate to strengthening project oversight, governance and efficiency would be mainstreamed across DA Units and Agencies. This would help to consolidate the new ways of doing business developed under the project and further pave the way for the longer-term sustainability of the reforms. This is consistent with the original design of PRDP that was built upon existing organizational and procedural processes.
- Integration of work programming across DA Units and Agencies. The institutional basis for achieving more integrated work programming has been initiated with the issuance of Planning and Budget Guidelines requiring that, commencing in FY18, all operating units and agencies of DA should use PCIPs as their reference document for their work programming. Further reinforcement of this instruction would be supported under the project through policy guidance, workshops and consultations.
- Institutionalization of PCIPs. The PCIP has been adopted by the DA as the main reference document for planning and rationalizing its strategic support for key commodities in partnership with Provincial-LGUs. Further institutionalization of this process would be pursued for PCIPs to also be a key reference document in the formulation of Provincial Development Plans, Provincial Investment Programs and for Regional Development Council investment integration (convergence) initiatives. This process is already underway and importantly is being demand driven by the increasing recognition of the merits of the PCIP process for investment prioritization.

- d) Prioritization of Infrastructure. As originally designed, PRDP has been demand driven with sub-projects meeting PRDP eligibility criteria being supported on a first come first-served basis. Given the large and expanding portfolio of sub-projects being submitted by provinces for support under PRDP, a more strategically targeted system of support would be introduced with the AF. Priority would be given to those provinces which have no PRDP-supported infrastructure yet. Prioritization for rural roads would be based on road influence area for agricultural production, weighted in favor of those rural roads with the largest economic and social impact (subject to their technical feasibility). The prioritization would also favor those LGUs with good implementation performance and conformity with PRDP Procurement and Financial Management guidelines. Additional road safety measures would be introduced to accompany the expanded FMR network. In addition to the measures already undertaken, this would include, among others, further awareness building, safe planning for critical road segments and enhanced reduced speed requirements for sensitive areas.
- e) Strengthened linkages between Infrastructure and Enterprise support. To strengthen the linkage between infrastructure development and enterprise support, the implementation guidelines would be modified to ensure that LGUs requesting infrastructure support also undertake specific enterprise and value chain development investments. This would reinforce the conceptual underpinning design of the PRDP which is to realign the focus of DA to (i) provide catalytic investments to spur economic development through critical rural infrastructure that have constrained the development of value chains and (ii) to support the clustering and vertical integration of small-scale producer groups and associations with those already in agro-processing and marketing.
- f) Laying the Foundation for Formalization and Institutionalization of DA's lead role and responsibilities for the provision of Access to Rural Areas. A significant development that has been fostered by PRDP and which would be implemented in conjunction with the AF, would be the formalization of the DA's responsibility for the strategic planning, oversight, technical standards and financing of FMRs. Construction of FMRs would, as already done under PRDP, be the responsibility of LGUs in accordance with the Local Government Code (1991). The selection and prioritization criteria, technical standards and processing requirements, as well as provisions for implementation monitoring and O&M would be based largely on the Operation Manuals developed and adopted under PRDP. This would provide the basis for a more rationalized approach to the development of rural roads, which in the past have been funded through multiple agencies without a strategic overlay and often without attention to their connectivity with other road networks, production areas or markets.

## Appraisal Summary

### Economic and Financial Analysis

Economic Benefits: The project's Economic Internal Rate of Return (EIRR) with the AF is 23.1 percent. The Net Present Value (NPV), discounted at 15 percent, is US\$78.18 million and the Benefit-Cost Ratio (BCR) is 1.45. The sensitivity analysis, undertaken to determine potential impact of risks due to (i) increased costs; (ii) reduced benefits; and (iii) delayed benefits, demonstrates a robust viability with the EIRR remaining above 15 percent and the Benefit-Cost Ratio remaining well above one. This also compares favorably with the analysis done at appraisal that projected an EIRR of 21 percent (see also Annex 4).

The project's benefits through the AF would be derived mainly through infrastructure development, comprising FMR construction and rehabilitation, PWS construction and rehabilitation, irrigation system construction and rehabilitation, and construction of other infrastructure (warehouse, solar dryer). As FMRs would comprise most infrastructure investments under the AF, most of the anticipated benefits would result from: (i) savings in vehicle operation costs; (ii) savings in agricultural output hauling costs; (iii) savings in hauling cost of production inputs; (iv) savings in travel time of commuters; (v) benefits from new agricultural areas (production expansion); and (vi) savings due to reduction of transport losses. The benefits of irrigation

investments would result from increase in cropping intensity, and increase in yield of irrigated areas. The benefits of PWS investments are likely to result from savings in fetching time, reduction in medical expenses, reduction in morbidity and mortality incidence. For other infrastructures (i.e. warehouse with solar dryer), the anticipated benefits include increased marketable value of produce, savings due to reduction of transport losses, and savings in output hauling cost.

In addition, other emerging benefits that have not been quantified comprise faster response to medical emergencies, increased schooling attendance and enrollment rates, safer transport opportunities particularly for women, increase land market, improved peace and order in the community. Innovations such as geo-tagging are also expected to generate cost savings in rural infrastructure investments resulting from increased transparency in investment practices.

**Financial Viability of Investments:** The analysis of various infrastructure investment models, with benefit-cost analyses calculated over a 20-year period, shows strong financial viability for each rural infrastructure investment type. Costs include investment and O&M costs. The benefits were derived from (i) savings in vehicle operation costs; (ii) savings in output hauling costs; (iii) savings in input hauling costs; (iv) savings in travel time of commuters; (v) production area expansion; and (vi) savings due to reduction in transport losses.

**Emerging Benefits:** In calculating the economic and financial benefits of the project with the AF, data was drawn from rapid appraisals undertaken on completed infrastructure sub-projects and completed enterprise sub-projects; these having 39,378 and 682 beneficiaries, respectively. Total investment costs for the completed infrastructure and enterprise sub-projects were PhP 362.78 million and PhP 46.87 million (Annex 5).

Users of FMRs reported an increase in average household income levels by nearly 60% (from PhP 89,234 to PhP 142,603). This increase does not distinguish the income source, i.e. on-farm income, off-farm income, and non-farm income, although household on-farm income constitutes nearly 72% of total household income. Specifically, farmers in FMR sites reported an increase of nearly 79% in their on-farm income level. Other benefits resulting from FMR construction/ rehabilitation include: (i) a reduction in travel time from farm to market site by 61%, i.e. from 16 to 6 minutes every kilometer; (ii) reduction in hauling costs of agricultural outputs by 47% i.e. from PhP22/sack to PhP12/sack; (iii) reduction in hauling cost of production inputs such as seedlings and fertilizer by 22% and 14%, respectively; (iv) more than doubling of traffic density by 112% (from 156 vehicles to 331 vehicles as a result of the FMR rehabilitation). Indirect benefits realized were: increases in farmed area, more competitive prices for commodities, improved peace and order, faster response for medical emergencies, and increased school attendance and enrollments.

For enterprise development activities, beneficiaries reported an increase in average enterprise income of 56% (from PhP 82,760 to PhP 129,151). This increase was attributed to: (i) increase in production volume and (ii) increase in farm gate prices. Specifically, the increase in production volume was 36%; increase in selling price was 18%; and increase in production area was 18%. The reported household income increase was 34%. Collectively, these emerging benefits are consistent with or exceed the performance indicators for the project as reflected in the Results Framework.

Significant benefits are also emerging from enhanced sustainability of the project's interventions through the institutional reforms under PRDP. Those reforms, which are aimed at devolving DA from its top-down approaches of the past by strengthening planning and implementation linkages and cost-sharing partnerships between the DA and the country's provincial LGUs, have greatly contributed to strengthening LGU ownership and O&M of investments. Significant benefits can also be expected from the substantial leveraging of additional resources that is being pursued through convergence of interventions with other national and local government sources, and from the private sector.

## **Technical Analysis**

The AF does not raise any new technical issues. The comprehensive Operational Manuals, including the Infrastructure Quality Monitoring and Durability System (IQMDS) and Operation and Maintenance Manuals adopted for the project have been progressively refined and updated, with the approval of the Bank, based on lessons learned during ongoing project implementation. They also conform with the Department of Public Works and Highways (DPWH) Circular 11, February 2014 on climate-proofed standards for concrete roads. The manuals and procedures have proven to be clear and effective.

## **Social Analysis**

The AF would largely scale-up infrastructure development activities which remain within the scope of the current PDO and would help the project to reach out to more provinces and facilitate additional sub-projects in support of the PDO. The AF will largely scale-up infrastructure development sub-projects for which safeguard policies are in place and are implemented satisfactorily. No new safeguard policies would be triggered.

The Borrower has prepared and adopted an Environmental and Social Safeguards Framework (ESSF) for PRDP which governs the processes and procedures for screening, validation, preparation, review, approval and monitoring of sub-projects to ensure compliance with the various applicable safeguard policies of the World Bank. This framework would be applicable for the AF.

The project has adopted a set of general policies pertaining to the types and location of infrastructure or development in the project areas. These policies will guide LGUs on the proper use of the uplands, lowlands, and coastal areas. In addition, alternatives will be considered at the sub-project level. All sub-projects are subjected to social and environmental screening to encourage LGUs to consider various environmentally and socially sound alternative sites and subproject configurations.

The provisions of OP 4.10 on Indigenous peoples and OP 4.12 on Land Acquisition remain in effect for the project. Compliance with safeguard policies has been satisfactory under the project and sufficient capacity exists to effectively monitor the scaling-up of activities through the Additional Financing. The Social and Environmental Safeguards (SES) units in NPCO, PSOs and RPCOs are actively involved in all phases of sub-project development (i.e. validation, preparation, review, construction supervision and post-construction evaluation). This has resulted in marked improvements in the quality of the design and delivery of sub-projects.

The ESSF and the Land Acquisition Rehabilitation and Resettlement Policy are formulated such that they allow expansion of the areas (and thus not limited original PRDP areas only). Also, sub-project impacts remain the same even with the scaling-up of infrastructure and additional agri-enterprise development. Therefore, safeguard instruments are considered up to date and sufficient to also reflect additional investments under the AF. The existing GRM will also be applied to new sub-projects under the AF.

There are also indications of a stronger sense of community ownerships of the sub-projects as LGUs comply with the mandatory consultations during sub-project preparation. In most of the sites, the Provincial Project Management and Implementation Units (PPMIUs) have mobilized their SES officers/focal persons in the implementation of right-of-way acquisition and compensation plans, as well as in the compliance monitoring constructions activities. The projects grievance system is now available online and includes updates on each case.

About 45% of the beneficiaries of enterprise sub-projects so far under PRDP are women. In addition to the overall benefits reported for farm-to-market roads, women particularly mention the benefits of increased

school attendance, better access to health services, particularly for births, better security when transporting good to the market. The original approaches on gender remain relevant and no new activities are proposed.

*Conflict Environment.* The project is also active in areas under conflict, including Autonomous Region in Muslim Mindanao (ARMM). The project has put measures in place for all its areas that are also applicable for conflict environments like ensuring that minority groups/Indigenous People's (IPs) are included in consultations, assure that representatives from key groups in the community are present during consultations, assuring local labor inputs. Over and above this, the project is not treating potential conflict areas like ARMM differently and the requirements, procedures and approaches for safeguards in ARMM, from the preparation of PCIPs to the preparation, review, approval and monitoring of sub-projects, have been the same as with other regions.

The implementation of social and environmental safeguard measures has not hampered by the conflict situation. According to the PSO Mindanao, the conflict situation has not really affected their ability to supervise and review sub-projects in ARMM. So far, the project has not had any conflict-related safeguards issues, even for right of way acquisition which has a high likelihood of being affected by conflict. In ARMM, landholding claims often do not have formal documentation and the same approach of right of way acquisition is applied as in other regions, by securing of "Waivers" from claimants/occupants and "Certification/Confirmation" from local community leaders, along with mandatory consultation. This so far seems to also have worked well in ARMM.

ARMM provinces undertake continual updating of their PCIPs. The updating requires consultations with minority groups. Currently, ARMM has a total of 29 approved I-BUILD sub-projects in its portfolio (2 completed; 4 currently with ongoing construction; 7 at NOL 1 stage (design already approved and for tender which means safeguards have been complied with); and 16 already approved by ARMM-RPAB). Additional infrastructure and enterprise sub-projects are under preparation. Four of the infrastructure sub-projects under preparation would be expected to be funded under the AF.

One major constraint in ARMM, which is also considered the main reason for the currently low number of sub-projects, is the low capacities of the RPCO and the LGUs. For safeguards, this constraint has been remedied by the assignment of dedicated PSO staff to assist the ARMM-RPCO. However, capacities at the provincial LGUs and municipalities are a challenge, which is compensated by more field presence and coaching by PSO and RPCOs. These measures will be continued under the AF. Also, as ARMM may not be able to compete with other regions on a "first-come-first-serve basis" of sub-project funding, some allocation for sub-project funding will be reserved for such areas. In addition, the AF will further explore if additional measures for conflict areas may be warranted like assuring that conflict affected are fully consulted in the PCIP process and conflict has been considered as a development factor in the prioritization process and that barangay officials are fully consulted. It will be further looked at that, in cases where contractors are coming from outside the area, cultural orientation is being provided.

### **Environmental Analysis**

The AF would not trigger any changes to the Environmental Category B rating or to the safeguard policies. The project is expected to continue to have no large-scale, significant and/or irreversible impacts. Based on the three years of project implementation, the scale, types and nature of sub-projects to be supported are assessed to cause only localized and temporary environmental and social impacts, which can be readily mitigated through proper planning, design and engineering measures. These impacts include loss of vegetation, soil erosion and sedimentation of waterways and elevated levels of noise and dust during construction.

Sub-project proposals will continue needing to be screened against other World Bank environmental policies including Natural Habitats (OP/BP 4.04), Forests (OP/BP4.36) and Safety of Dams (OP/BP4.37) particularly in regard to small-scale irrigation systems. Compliance with Environmental Safeguards has been satisfactory. Road designs consider the environmental conditions in the sub-project sites, addressing right-of-way issues, drainage, road slope stability and safety issues.

*Climate co-benefits.* Climate co-benefits for the project have been calculated and comprise of adaptation co-benefits for the infrastructure component (based on incremental costs of increasing the resilience of the farm to market roads (and bridges) with 10% co-benefits) and of mitigation co-benefits for other infrastructures (warehouses with solar dryers and composting facilities with 10% co-benefits).

#### **Risk**

Due to the nation-wide scope of the project, country sector operating conditions and the changing climate factors and periodic extreme weather conditions which impact particularly on agricultural productivity, the overall Implementation risk rating of Substantial has been retained. The main specific risks, which are rated as Substantial, are related to fiduciary, institutional capacity for implementation and sustainability, and stakeholders' risks. The main fiduciary risks relate to the nationwide coverage of the project and associated complexities in monitoring FM and procurement implementation. Implementation experience to this point, coupled with the continued strong commitment to the project across two government administrations, has effectively addressed the risks identified at appraisal of the original project. Stakeholder risks relate to capacity at the LGU level still being a constraint, especially regarding local level staff capacity to assist proponent groups in formulating and approving financially viable rural enterprise proposals, and then in assisting with the timely procurement of equipment and materials. The process of selecting, designing, contracting and implementing rural roads, is also taking substantially longer than the Service Standards established for the project. Social and Environmental risks are rated as Moderate.

## **VI. World Bank Grievance Redress**

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service, please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).



**Results Framework and Monitoring**  
**PHILIPPINES: Additional Financing for the Philippine Rural Development Project**

Project Name:	Philippine Rural Development Project Additional Financing (P161944)	Project Stage:	Additional Financing	Status:	DRAFT
Team Leader(s):	Frauke Jungbluth	Requesting Unit:	EACPF	Created by:	Frauke Jungbluth on 29-Mar-2017
Product Line:	IBRD/IDA	Responsible Unit:	GFA02	Modified by:	Frauke Jungbluth on 21-Nov-2017
Country:	Philippines	Approval FY:	2018		
Region:	EAST ASIA AND PACIFIC	Financing Instrument:	Investment Project Financing		
Parent Project ID:	P132317	Parent Project Name:	Philippine Rural Development Project (P132317)		

### Project Development Objectives

Original Project Development Objective - Parent:

The PRDP aims to increase rural incomes and enhance farm and fishery productivity in the targeted areas by supporting smallholders and fisher folk to increase their marketable surpluses, and their access to markets.

Proposed Project Development Objective - Additional Financing (AF):

The PRDP aims to increase rural incomes and enhance farm and fishery productivity in the targeted areas.

### Results

Core sector indicators are considered: Yes

Results reporting level: Project Level

### Project Development Objective Indicators

Status	Indicator Name	Corpo-rate	Unit of Measure		Baseline	Actual(Current)	End Target
Revised		<input type="checkbox"/>	Percentage	Value	0.00	0.00	30.00
				Date	31-Dec-2014	10-Mar-2017	31-May-2021

	Increased real household incomes of farmer and fisher folk beneficiaries			Comment		Update not yet applicable for this reporting period as various sub-projects have yet to be implemented / completed.	
No Change	Increased income of beneficiaries involved in enterprise development	<input type="checkbox"/>	Percentage	Value	0.00	0.00	30.00
				Date	31-Dec-2014	10-Mar-2017	31-May-2021
				Comment		Update not yet applicable for this reporting period as various sub-projects have yet to be implemented / completed. This will be further analyzed in the mid-term survey,	
No Change	Increase in value of annual marketed output	<input type="checkbox"/>	Percentage	Value	0.00	0.00	41.00
				Date	31-Dec-2014	10-Mar-2017	31-May-2021
				Comment		Update not yet applicable for this reporting period as various sub-projects have yet to be implemented / completed.	
Marked for Deletion	Increase in number of farmers and fisher folk with improved access to Department of Agriculture services	<input type="checkbox"/>	Percentage	Value	0.00	0.00	20.00
				Date	31-Dec-2014	10-Mar-2017	31-May-2021
				Comment		Update not yet applicable for this reporting period as various sub-projects have yet to	

						be implemented / completed.	
New	Farmers reached with agricultural assets or services	<input checked="" type="checkbox"/>	Number	Value	0.00	100000.00	600000.00
				Date	31-Dec-2014		31-May-2021
				Comment		This indicator replaces the one above.	
New	Farmers reached with agricultural assets or services - Female	<input checked="" type="checkbox"/>	Number Sub Type Supplemental	Value	0.00	45000.00	270000.00

#### Intermediate Results Indicators

Status	Indicator Name	Corporate	Unit of Measure		Baseline	Actual(Current)	End Target
Revised	Provincial Commodity Investment Plans agreed based on regional AFMPs	<input type="checkbox"/>	Number	Value	0.00	78.00	81.00
				Date	31-Dec-2014	30-Apr-2017	31-May-2021
				Comment			One more province was created.
Marked for Deletion	Enhanced Planning Programming & Budget Guidelines being effectively mainstreamed (across Department of Agriculture programs) - No of Regions (RFOs)	<input type="checkbox"/>	Number	Value	0.00	2.00	16.00
				Date	31-Dec-2014	10-Mar-2017	31-May-2021
				Comment			
New	Provincial Commodity Investment Plans being used by provinces as platform for leveraging additional resources and convergence	<input type="checkbox"/>	Number	Value	0.00	16.00	49.00
				Date	31-Dec-2014	21-Sep-2017	31-May-2021
				Comment			
New	Provincial Commodity Investment Plans using enhanced climate risks and resiliency criteria to identify and prioritize investment	<input type="checkbox"/>	Number	Value	0.00	0.00	60.00
				Date	31-Dec-2014	21-Sep-2017	31-May-2021
				Comment			
Revised			Number	Value	0.00	0.00	16.00

	Specific area based integrated Plan, Program and Budget for Technical Service Delivery being implemented	<input type="checkbox"/>		Date	31-Dec-2014	21-Sep-2017	31-May-2021
				Comment			
No Change	Biodiversity conservation and coastal resources co-management features incorporated in the PCIPs (No. of Provinces)	<input type="checkbox"/>	Number	Value	0.00	6.00	8.00
				Date	31-Dec-2014	10-Mar-2017	31-Dec-2020
				Comment			
New	Roads constructed	<input checked="" type="checkbox"/>	Kilometers	Value	0.00	300.00	2300.00
				Date	31-Dec-2014	21-Sep-2017	31-May-2021
				Comment			
New	Roads constructed - rural	<input checked="" type="checkbox"/>	Kilometers Sub Type Supplemental	Value	0.00	300.00	2300.00
Revised	Reduction in travel time	<input type="checkbox"/>	Percentage	Value	0.00	30.00	40.00
				Date	31-Dec-2014	21-Sep-2017	31-May-2021
				Comment		From rapid appraisal of the roads completed.	
New	Reduction in transport costs of roads linking production areas to markets	<input type="checkbox"/>	Percentage	Value	0.00	20.00	30.00
				Date	31-Dec-2014	30-Apr-2017	31-May-2021
				Comment		Limited sample only	
Revised	Producers satisfied with adequacy of access to post-harvest services and facilities (Percent Increase)	<input type="checkbox"/>	Percentage	Value	0.00	0.00	50.00
				Date	31-Dec-2014	30-Apr-2017	31-May-2021
				Comment		Too early to measure the indicator.	
New	Area provided with new/improved irrigation or drainage services	<input checked="" type="checkbox"/>	Hectare(Ha)	Value	0.00	100.00	2600.00
				Date	31-Dec-2014	21-Sep-2017	31-May-2021

				Comment			
New	Area provided with improved irrigation or drainage services	<input checked="" type="checkbox"/>	Hectare(Ha)	Value	0.00	100.00	1300.00
			Sub Type	Date	31-Dec-2014	21-Sep-2017	31-May-2021
			Breakdown	Comment			
Marked for Deletion	Area provided with irrigation and drainage services (ha) (Core)	<input type="checkbox"/>	Hectare(Ha)	Value	0.00	150.00	64031.00
				Date	31-Dec-2014	10-Mar-2017	31-Dec-2020
				Comment			
New	Proponent group members operating viable enterprises	<input type="checkbox"/>	Number	Value	0.00	680.00	45000.00
				Date	31-Dec-2014	21-Sep-2017	31-May-2021
				Comment			
Marked for Deletion	Increased Producer Groups participating in vertically linked commodity value chain clusters (Percent increase in number of groups operating viable enterprises)	<input type="checkbox"/>	Percentage	Value	0.00	0.00	50.00
				Date	31-Dec-2014	31-Oct-2016	31-Dec-2020
				Comment			
Revised	Women directly benefitting from enterprises	<input type="checkbox"/>	Percentage	Value	0.00	40.00	50.00
				Date	31-Dec-2014	30-Apr-2017	31-May-2021
				Comment			
Marked for Deletion	Increased producer groups and fisher folk resilience to climate change and adverse weather conditions (Percent increase)	<input type="checkbox"/>	Percentage	Value	0.00	0.00	25.00
				Date	31-Dec-2014	10-Mar-2017	31-Dec-2020
				Comment			
Revised	Producer productivity enhanced through arrangements for marketing and/or technical services	<input type="checkbox"/>	Percentage	Value	0.00	20.00	50.00
				Date	31-Dec-2014	21-Sep-2017	31-May-2021
				Comment			
No Change	Productivity in globally significant fish biodiversity sites enhanced through improved resource management, biodiversity conservation, co-management	<input type="checkbox"/>	Percentage	Value	0.00	0.00	10.00
				Date	31-Dec-2014	10-Mar-2017	31-Dec-2020
				Comment			

	arrangements, and knowledge sharing (% increase)						
New	PRDP's enhanced operational procedures, standards and tools for Local and National Planning, Program Support, Infrastructure and Enterprise support mainstreamed across DA agencies	<input type="checkbox"/>	Number	Value	0.00	4.00	10.00
				Date	31-Dec-2014	21-Sep-2017	31-May-2021
				Comment			
New	Grievances registered in the project's grievance redress system addressed	<input type="checkbox"/>	Percentage	Value	0.00	75.00	90.00
				Date	31-Dec-2014	21-Sep-2017	31-May-2021
				Comment			

**Annex 2: Implementation Arrangements and Changes**  
**PHILIPPINES: Additional Financing for the Philippine Rural Development Project**

1. The AF is proposed as an initial response to the request from the Philippine Government for a US\$450 million additional financing from the World Bank<sup>6</sup>. This level of financing was approved by the National Economic Development Authority-Investment Coordination Committee (NEDA-ICC) on November 14, 2016 and is sought primarily to finance the strong and expanding demands from provincial Local Government Units (LGUs) for rural infrastructure support under the project. The Additional Financing request from DOF for US\$450 million, is based on an existing pipeline of sub-projects submitted by provincial LGUs. Construction costs also increased under the project due to an Executive Decision, shortly after project approval in December 2014, requiring that all roads to be concrete. Because of these cost increases and the high demand from LGUs for project support, especially for rural (farm-to-market) roads, all available loan funds for Component 2 – Infrastructure Development have been committed within three years into implementation of this six-year project. Additional Financing of US\$170 million is proposed at this time to accommodate additional demands from LGUs that are anticipated over an 18-20 months' period. The possibility of further additional financing would be considered at a later stage, based on continued strong performance and financing needs and in line with the original Government approved request for financing.

2. The AF would support investments supporting project impacts, and would enable support for some of the country's LGUs that have yet to avail of financing for investments; in keeping with PRDP's intended nation-wide coverage. A portion of the AF would be allocated to provide implementation support for the expanded scale of the project, and the considerable oversight and capacity building requirements for implementing PRDP.

3. The Additional Financing would also support expansion of the institutional reforms embodied in the project through further consolidating new ways of doing business across the DA. These reforms have devolved the DA from its top-down approaches of the past, to an institution that now undertakes joint-localized planning, technical and investment support through partnerships and cost-sharing with LGUs. At the local level, the Additional Financing would be used to further institutionalize the joint-planning with provincial LGUs through Provincial Commodity Investment Plans (PCIPs), and to strengthen the mechanisms through which PCIPs are used by LGUs to leverage additional resources, and to converge with programs of other Government agencies, and the private sector. At the national level, the closer linkages and synergies with the programs across DA technical and regulatory agencies that have been forged through PRDP, would be further mainstreamed and strengthened.

**Institutional Arrangements and Capacity for Project Implementation**

4. The institutional arrangements and capacity for project implementation are adequate and appropriate to effectively implement the expanded project with the Additional Financing. Significant institutional reforms have been introduced under the project and these would be further expanded and mainstreamed through the AF. A summary of these reforms is provided below (Table 1).

5. At the National level, the project management arrangements are effectively in place for the nation-wide coverage of the project. These institutional arrangements are fully consistent with those agreed at appraisal. An important element in the design the Project Management aspects of PRDP was that it would work within the existing institutional arrangements of the Department of Agriculture, with a view to strengthening capacity and facilitating the long-term sustainability of interventions and approach forged

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<sup>6</sup> DOF letter from Assistant Secretary Tan on January 19, 2017 to DA Secretary Piñol, subsequently endorsed to the Bank from the DA on February 13, 2017 by Undersecretary Cayanan.

under PRDP. This remains a central element in the way the project is being implemented. The process of institutionalizing reforms and new ways of doing business developed under PRDP are being mainstreamed across the DA as envisioned under the project. The AF would further strengthen this process with refinements and more proactive engagement between PRDP and other DA Units, Bureaus and Agencies (key features of institutional arrangements for the project are summarized below and illustrated in Box 1).

- a) The National Project Coordination Office (NPCO) is under the Office of the Under-Secretary of Field Operations Services (FOS). All Regional Field Offices (RFOs) of the DA report to the Under-Secretary and through that office to the Secretary of Agriculture.
- b) RFOs are clustered for convenience in implementing the project into four groups based on geographical location: Northern Luzon (Luzon A) (Regions 1, CAR, 2, 3), Southern Luzon (Luzon B) (Regions 4A, 4B, 5), Visayas (Regions 6, 7, 8), Mindanao (Regions 9, 10, 11, 12, 13, ARMM). RFOs, under the Regional Executive Director, are responsible for all DA activities in their respective Regions.
- c) Each DA-RFO has established a Regional Project Coordination Office (RPCO) to specifically manage the PRDP. These comprise a composite of skills for managing the infrastructure (I-BUILD) and enterprise (I-Reap) components, as well as the planning (I-Plan) and Support (I-Support), aspects of the project.
- d) A Project Support Office (PSO) has been established to serve each of the four RFO clusters. Staff have been drawn both from DA organic staff and consultants. Such units have been designed as an interim measure to provide technical support, review and approval backstopping for RPCOs, and as management arms of the NPCO. They have proven to be very effective in helping in the overall management and coordination of the project, and in building RPCO capacity.
- e) Project Advisory Boards comprising multi-agency, farmer and other stakeholder representatives have been established and are functioning effectively at the National (NPAB) and Regional levels (RPAB). At the national level the NPAB approves policy direction and refinement of procedures as well as monitoring of overall project performance. At regional levels, they approve sub-project proposals, as well as facilitate the regional harmonization of approach and convergence (inter-institutional linkages).

6. The capacity of the NPCO, PSOs and RPCOs has proven to be adequate. There are currently 1,005 staff working nationwide for PRDP, consisting of 38 full time organic DA staff and 418 organic DA staff working on part-time basis along with 549 contracted staff. The AF would sustain this capacity by ensuring the availability of financing to maintain the momentum of operations and avoiding staff redeployment.

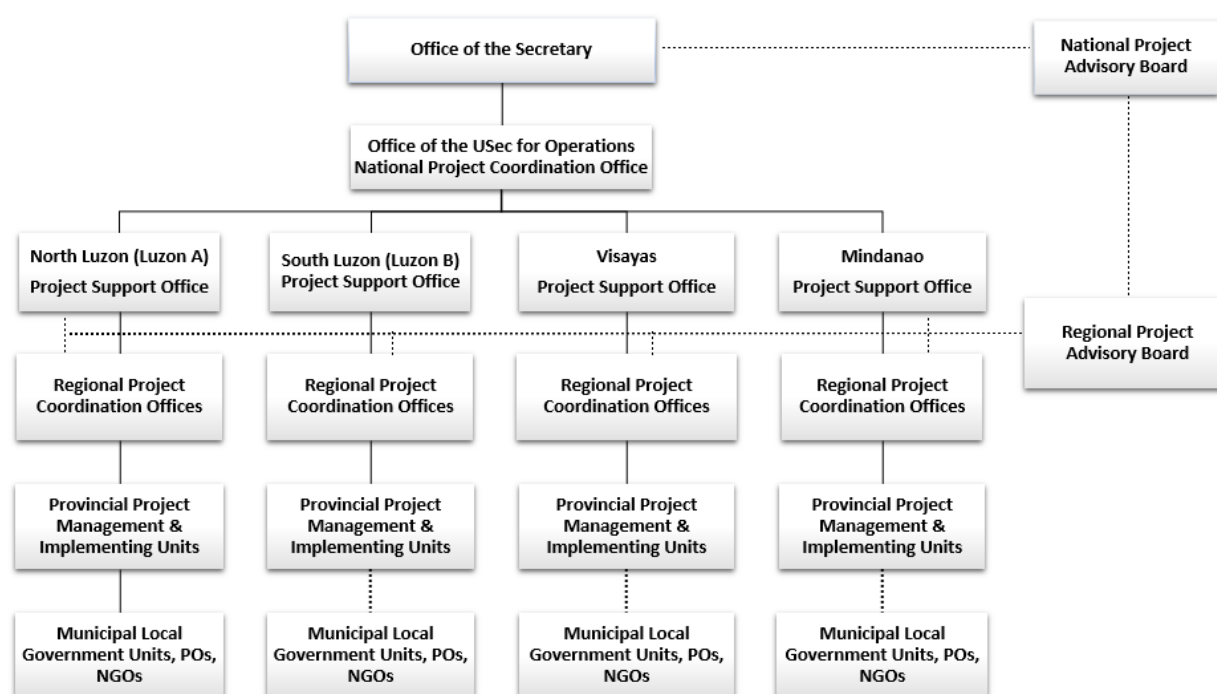
7. At the provincial level, the institutional arrangements for the partnership arrangements between the DA and provincial Local Government Units (LGUs) also closely mirror the arrangements agreed at appraisal. Such arrangements have been well supported by LGUs across the country and have greatly contributed to building LGU implementation capacity. Of the 81 LGUs in the country 78 have already entered Memoranda of Agreements (MOAs) to participate in the project, including the establishment of Provincial Project Management Implementation Units (PPMIUs) reporting to the office of the Provincial Governor. The capacity of these units varies across the country and this is being addressed through the provision of additional support from RPCOs. The capacity of the PPMIUs is largely satisfactory. The strong project support from LGUs is evidenced by the rapid uptake of investments and the integration of PCIPs into the Provincial Planning and Investment Programs. Some 1,445 LGU staff are involved in the project implementation through the PPMIUs.



8. The Provincial Commodity Investment Plans (PCIPs), developed under PRDP, have been institutionalized as the collaborative planning instrument between the DA and LGUs. They are providing an effective platform through which the DA can rationalize its localized support for productivity strengthening. The commodities and investments supported through PCIPs are based on national priorities as determined through the Agriculture and Fisheries Modernization Plan (AFMP), and the more strategically focused Regional-AFMP. The suitability of the areas for such commodities is determined through the eVSA tool, which takes account of environmental, edaphic and socio-economic factors. The type of interventions supported is subsequently determined through Value Chain Analyses (VCAs).

9. The interventions identified in the PCIPs are broader than the investments supported under PRDP and as such are providing a planning framework for convergence (integration) with other Government agencies and the Private sector. There has been a strong uptake and recognition by LGUs of the merits of the PCIP process. All 81 provincial LGUs have adopted PCIPs, and some 44% have to varying degrees institutionalized these as a reference document for preparation of regular LGU Planning and Investment prioritization processes. This process is being actively pursued under the project. Moreover, the PCIP is also being adopted at the level of the Regional Development Council to enhance convergence across LGUs. Importantly this process is being driven by the increasingly broad recognition of the merits of the process at the level of Provincial Governors and oversight agencies. To this point, 56 LGUs have reported leveraging PHP3.9 billion, while another PhP35 billion is under discussion with various agencies, beyond that supported by PRDP.

### Box 1. Project Institutional and Implementation Structure



10. Strengthening of implementation procedures has been introduced under the project and their application has been strictly followed. The technical and procedural process for selection, design, implementation, procurement, safeguard, O&M and M&E of sub-project investments for both infrastructure and enterprise are comprehensively documented in Operation Manuals. These manuals have been updated and streamlined as experience under the project has progressed.

11. Governance Strengthening has been achieved through a number of initiatives and have been developed in-house by the DA as summarized below:

- i) *Applied Geo-Tagging (AGT)* is fully operational and being used for sub-project identification, validation, monitoring, and supervision<sup>7</sup>. It uses the Google Earth-based mapping system for identification of PRDP sub-projects to promote transparency and public disclosure.
- ii) *An electronic system (eNOL)* of No objection to proceed with procurement (NOL1) or with construction (NOL2) has been launched. It provides a publicly accessible monitoring and tracking system on the issuance of NOLs, and up-to-date information on the status of review.
- iii) *A web-based Document Tracking System* is operational through which the NPCO, PSOs and RPCOs can trace the phasing and flow of all documents.
- iv) *Citizens Monitoring* has been successfully piloted and the system is now being rolled-out. It provides a checklist and feedback mechanism through which beneficiaries of infrastructure investments can participate in the monitoring of contractor performance.
- v) *A Grievance Redress System* is operational and proving to be effective. It is accessible online. To this point the Grievance Redress System has received 41 complaints of which 26 have been resolved and 15 are under review.
- vi) *A PRDP-Go App*, is available for PRDP sub-projects and can be freely downloaded. It provides details and maps of all I-Build and I-Reap sub-project sites and provides for the public to upload comments and photos on the PRDP supported investments.

12. Environmental and Social Safeguard Monitoring procedures and compliance with requirements have consistently been rated as satisfactory. Staffing are well established and have been assessed to be adequate and appropriate for the expanded project implementation under the AF. The safeguard system and the grievance redress mechanisms that have been set-up for the project following the ESSF, are functioning well and will also be used to look-out for and monitor labor influx issues. The SES units in NPCO, PSOs and RPCOs are actively involved in all phases of sub-project development (i.e. validation, preparation, review, construction supervision and post-construction evaluation). This has resulted in marked improvements in the quality of the design and delivery of sub-projects. Most road designs now consider the environmental and social conditions in the sub-project sites, addressing right-of-way issues, drainage, road slope stability and safety issues. Sub-projects under implementation that are found to have these issues undergo contract variations to incorporate the needed engineering measures. There are also indications of a stronger sense of community ownerships of the sub-projects as LGUs comply with the mandatory consultations during sub-project preparation. Most PPMIUs are effectively mobilizing their SES officers/focal persons in the implementation of right-of-way acquisition and compensation plans as well as in the compliance monitoring constructions activities.

13. A fully functional and effective web-based MIS platform has been established and provides a platform for real-time project monitoring of PRDP from budget, implementation to execution. It automates the collection of data across I-Plan, I-Build and I-Reap. It is also aligned with other government systems and protocols, including the DPWH electronic project life-cycle (e.g. construction schedule & progress S-Curve). The web-based system is being recognized as “best-practice” both across government departments of the Philippines and internationally. An innovation associated with the M&E system has been the development and use of Applied Geo-Tagging. This uses the Google Earth-based mapping system for tracking, oversight and public disclosure of infrastructure, enterprises and facilities supported under the project. Other innovations have been the recent launching of eNOL, an electronic system enabling the status of sub-project review and approval to be publicly accessible. A Citizens Monitoring System is also

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<sup>7</sup> An estimated PHP 2.184 billion has been saved to this point through geo-tagging and map overlays avoiding duplication or overlaps. The savings resulted from some 32 FMRs where need for corrective actions were identified e.g., in alignment, less costly designs or cancelation.

under implementation to provide a mechanism for stakeholder feedback on the implementation of sub-projects. This is complemented by the Grievance Redress System which is now functioning effectively.

### **Institutional, and Implementation Changes to be Introduced with the Additional Financing**

14. The AF would (i) expand the impact of the project through the provision of additional rural infrastructure; (ii) enhance the mechanisms for prioritizing infrastructure investments by type and provincial distribution; and (iii) further promote and consolidate the institutional reforms under the project. There are no new technical issues associated with the Additional Financing, but rather some refinements in approach. The comprehensive Operation Manuals, including the Infrastructure Quality Monitoring and Durability System (IQMDS) and Operation and Maintenance Manuals, adopted for the project have been progressively refined and updated with the approval of the Bank, based on lessons learned during ongoing project implementation. They also conform with DPWH Circular 11 (of February 2014) on standards for concrete roads and the procedures have proven to be clear and effective. The key changes are as follows.

15. Institutional mainstreaming of functions and new ways of doing business across DA Units and Agencies would be actively pursued. Key functions and approaches to be mainstreamed would include (i) Applied Geo-Tagging to promote transparency and public disclosure; (ii) broader use of the electronic system (eNOL) of “No objection to proceed with procurement” (NOL1) or with construction (NOL2) to provide a publicly accessible monitoring and tracking system; (iii) institutionalization of the web-based Document Tracking System to facilitate the tracing and flow of documents; (iv) roll-out across the DA of the Citizens Monitoring System to provide a checklist and feedback mechanism through which beneficiaries can participate in the monitoring of DA interventions; and (v) broader use of the on-line Grievance Redress System; and (vi) strengthened integration of Feasibility Study/Project Proposal with Economic Analysis into infrastructure subproject proposals. The process of mainstreaming would involve the identification of the relevant unit or agency in the DA that could benefit from the enhanced procedures, coupled with workshops, on-the-job training and issuance of revised administrative instructions as necessary. Implementation responsibility for the mainstreaming would be that of the NPCO management, drawing especially upon the resources of I-Support and I-Plan project staff.

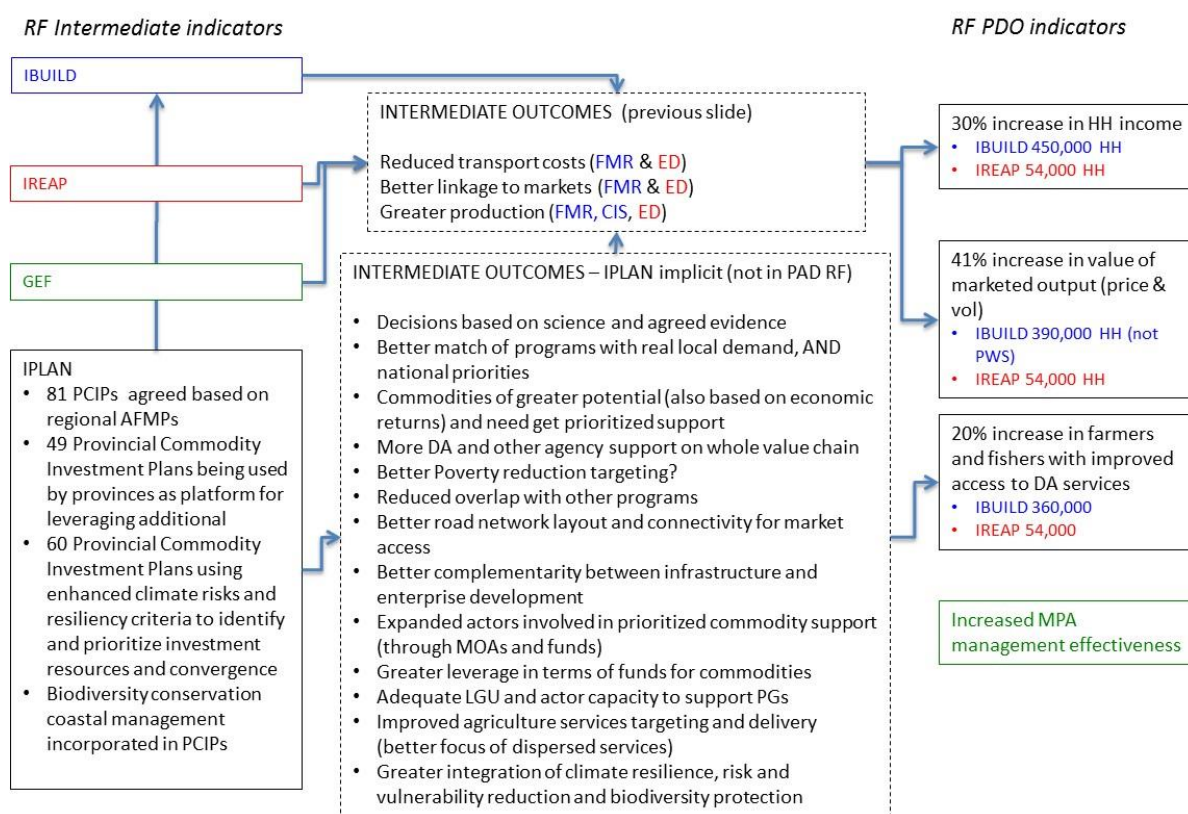
16. Strengthened joint work programming between PRDP and DA Units and Agencies. The specific focus would be on (i) The High Value Crops Program of the DA which has overlapping goals with PRDP; (ii) The Bureau of Soil and Water Management especially in identification of opportunities for expanded Small Scale Irrigation Systems for high value crops to address seasonal water shortages, especially associated with the changing climate patterns being experienced across the Philippines; (iii) the Central Agricultural and Fisheries Engineering Division; and (iv) with the Bureau of Fisheries and Aquatic Resources to expand upon developments under the GEF component in strengthening the management of Marine Protected Areas and development of coastal fishery and seaweed resources. Implementation responsibility for the joint work programming has in the first instance already been instituted through the FY2018 Planning and Budget Guidelines of the DA. This requires that all units and agencies use PCIPs as their reference document for their work programming. Further reinforcement of this instruction would be facilitated through Project Advisory Board (NPAB and RPAB) policy guidance and interventions, direct consultations to be undertaken by NPCO management and the relevant staff resources of I-Build, I-Reap, I-Plan, I-Support and GEF. Underpinning this would be the revision of the Agriculture and Fisheries Modernization Plan (AFMP). The AFMP and the more focused Regional-AFMP would provide the instrument for revisiting the strategic focus of all DA units and Agencies.

17. Institutionalization of PCIPs as a key reference document in the formulation of Provincial Development Plans, Provincial Investment Programs and for Regional Development Council Investment integration (Convergence) initiatives. This process is being demand driven by the increasing recognition of the merits of the PCIP process and investment prioritization and already some 44 percent of LGUs with

approved PCIPs are in the process of institutionalizing PCIPs as a key reference document in their planning and budgeting processes. This would be further strengthened at both, provincial and regional levels through (i) the sharing of best practice across PSOs and RPCOs as to localized initiatives, such as the issuance of instructions by NEDA (Region 13) requiring the use of PCIPs as a planning document for the Regional Development Council and (ii) through Program Contracts, as provided for under Sub-component 1.2 to catalyze intra- and inter-agency convergence in supporting mutually reinforcing interventions identified through PCIPs.

18. Strengthened linkages between infrastructure and enterprise support. The AF would be used to strengthen the conceptual underpinning of the PRDP. As designed, the focus of the project is to realign the focus of DA to (i) provide catalytic investments to spur economic development through critical rural infrastructure that have constrained the development of value chains and (ii) to support the clustering and vertical integration of small-scale producer groups and associations with those already in agro-processing and marketing. The catalytic focus is especially targeted to bring about the clustering and value chain linkages of the large population of small-scale producers, who hitherto have been too dispersed and/or limited in their marketable surplus to avail of rural credit or to develop functional producer associations or cooperatives. Coupled with this strategic focus, the project is designed to provide the all-weather access of such productive, yet underdeveloped areas; a major constraint given that about half of all rural villages lacked all-weather access to market outlets at the commencement of the project (Box 2).

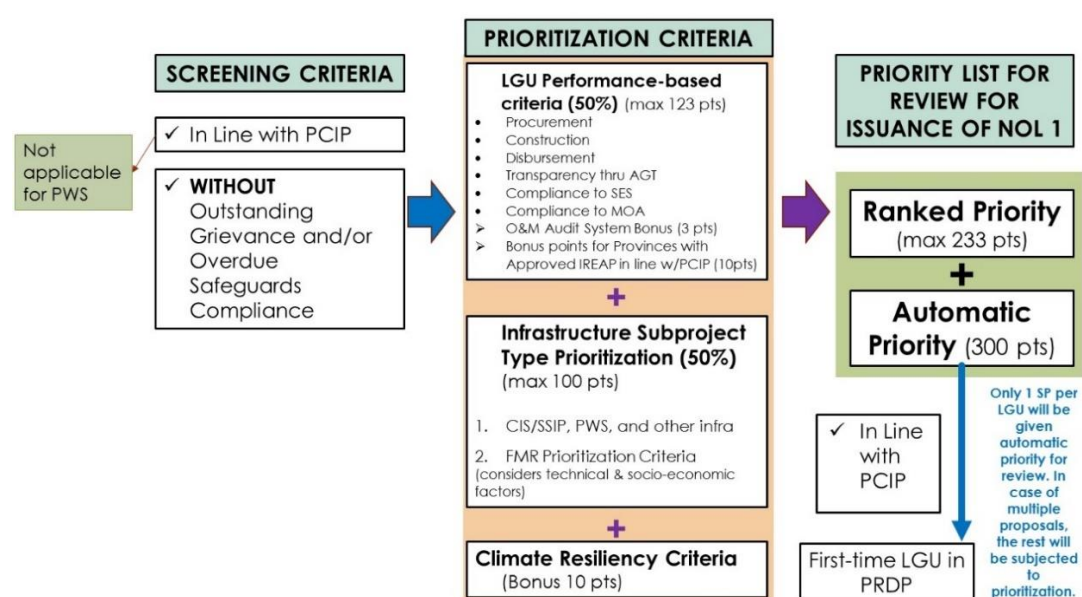
## Box 2. Inter-linkage between Infrastructure Development (I-Build), Enterprise Development (I-Reap), GEF-supported Interventions and the Results Framework



19. Introduction of Prioritization Criteria to enable more strategic and effective targeting of DA infrastructure investment support. As originally designed, PRDP has been demand driven with sub-projects meeting PRDP eligibility criteria being supported on a first come first-served basis. Given the large and

expanding portfolio of sub-projects being submitted by provinces for support under PRDP, a more strategically targeted system of support would be introduced with the Additional Financing. The underpinning rationale for the prioritization would be to maximize the impact of limited resources to foster competitive agriculture productivity and inclusive growth, in keeping with DA's mandate. Prioritization for rural roads would be based on road influence area for agricultural production, weighted in favor of those rural roads with the largest economic and social impact (subject to their technical feasibility). The prioritization would also favour those LGUs with good implementation performance and conformity with PRDP Procurement and Financial Management guidelines. An overview of this system is provided in Box 3. Its application for investments would be agreed as a condition of the AF. The initial listing of sub-project to be supported under the AF (Annex 4) has been developed using the new prioritization criteria.

**Box 3: Prioritization Criteria and Process for Rural Infrastructure proposed under PRDP AF**



**Table 1. Summary of the Institutional Reforms under PRDP and of Mainstreaming Initiatives**

Institutional Reform Outcomes for the DA & LGUs	Instruments for Change	Status and Next Steps
Top-down commodity based planning by the DA replaced with a system of planning and investment that links national strategic objectives (AFMP) with regional (RAFMP) and local level (LGU) plans and strategies (PCIP) <sup>8</sup> .	<ul style="list-style-type: none"> <li>➤ Issuance of DA-wide Planning and Budgeting Guidelines on use of the PCIP.</li> <li>➤ Legal covenant: by January 31, 2018 an updated set of common harmonized criteria, should be adopted governing <i>inter alia</i>, the selection, implementation, technical design standards, financial and economic analysis, operations and maintenance, safeguard policies, monitoring and evaluation as used for the project, for other infrastructure and enterprise development sub-projects supported by the DA.</li> <li>➤ Legal covenant: by January 31, 2018, the Borrower should update the AFMP taking account of the revised planning and budgeting guidelines</li> </ul>	<ul style="list-style-type: none"> <li>✓ 2016 Planning and Budgeting Guidelines issued requiring all DA Bureaus &amp; Agencies to use the PCIPs as reference documents in planning and budgeting from FY18.</li> <li>✓ Harmonized Manual issued on the criteria to be used across the DA for infrastructure sub-projects supported by the DA in partnership with LGUs. This is in the process of being expanded to also include DA support for enterprise sub-projects.</li> <li>✓ Strengthened planning and budgeting linkages being specifically pursued with HVCDP, BSWM and BFAR in keeping with their overlapping mandates and interests in investments being supported under PRDP.</li> <li>✓ The updating of the AFMP is ongoing.</li> </ul>
LGUs adopt the eVSA and VCA technical analyses prescribed by PRDP as the basis for developing and utilizing PCIPs.	<ul style="list-style-type: none"> <li>➤ eVSAs (expanded Vulnerability and Suitability Assessments) that provide the edaphic, &amp; climate suitability of agric. areas for different crops</li> <li>➤ Value Chain Analyses (VCAs) completed for all major agricultural and fishery commodities and used as the technical basis for prioritizing interventions and investments</li> </ul>	<ul style="list-style-type: none"> <li>✓ eVSA mapping completed for the country and already institutionalized in the DA</li> <li>✓ 94 VCAs completed and validated encompassing all key commodities of the country. The Central Bank's Monetary Board Resolution No. 360 of February 24, 2016 adopted the Agricultural Value Chain Financing Framework as the basis for supporting GoP interventions.</li> </ul>
LGUs adopt the PCIP approach as the planning instrument to (i) provide a transparent process through which broad stakeholder participation can occur; (ii) inform and leverage private sector investment in conjunction with national & LGU supported investments; (iii) identify and facilitate provision of support services from responsible national agencies; (iv) enhance convergence between support coming from various programs and providers; (v) identify unfunded needs to help leverage resources e.g., from bi-lateral and multilateral sources, NGOs, and the private sector.	<ul style="list-style-type: none"> <li>➤ PCIPs developed and put into effect following PRDP Operational Manual guidelines</li> <li>➤ PCIP to be integrated with the Provincial Physical Framework Plan (PPFP), Provincial Development Plan (PDF) &amp; Annual Investment Plan (AIP)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Provincial Commodity Investment Plans have been well adopted as a planning tool by cities (8) and 78 provinces (out of 81). Of the 78 provinces with PCIPs, 75 already have submitted subprojects for support under PRDP. Collectively there are 1,225 sub-projects under various stages of review and implementation.</li> <li>✓ PCIPs are increasingly being used to leverage additional resources &amp; convergence. To this point 56 provincial LGUs have reported leveraging PhP3.9 billion, while another PhP 35 billion is under discussion with various agencies, beyond that supported by PRDP.</li> </ul>
Enhanced transparency and accountability in the delivery of support services for small farmer	<ul style="list-style-type: none"> <li>➤ National Instructions to DA Agencies to program their</li> </ul>	<ul style="list-style-type: none"> <li>✓ 2016 Planning and Budgeting Guidelines require all DA agencies and bureaus to make provision for providing technical services.</li> </ul>

<sup>8</sup> AFMP: Agriculture and Fisheries Modernization Plan - legislated through the AFMP Act, RAFMP-Regional AFMPs that tailor national strategic goals to regional needs, and PCIPs – the LGU planning instrument developed under PRDP that identifies investment priorities for priority agricultural and fishery commodities determined through technically based criteria and analysis.

<b>Institutional Reform Outcomes for the DA &amp; LGUs</b>	<b>Instruments for Change</b>	<b>Status and Next Steps</b>
<p>and fisher producers, cooperatives, associations and related micro-enterprises.</p>	<p>delivery of support services based on PCIP identified needs.</p> <ul style="list-style-type: none"> <li>➤ DA-Regional Executive Directors (REDs) instructed to facilitate coordination between DA agencies in the delivery of support services supportive of the PCIP priorities</li> <li>➤ Program Agreements (through PRDP) enabling Technical assistance to be contracted from the best available source as needed</li> <li>➤ Regular and automated Implementation Reporting to Provincial Governors, Mayors and PPMIUs on the status of their subproject by the M&amp;E unit with provision for electronic feedback/follow-up</li> </ul>	<p>Program Contracts with Bureaus and attached agencies are under development to strengthen this process. This process is to be further reinforced as part of the revision of the AFMP and RAFMP.</p> <ul style="list-style-type: none"> <li>✓ REDs routinely following up to facilitate more transparent and accountable delivery of support services. Stronger backward linkages however are still needed between VCA findings and the technical support delivered by the DA technical bureaus.</li> <li>✓ Format for Implementation Reporting to Provincial Governors, Mayors and PPMIUs under preparation pending roll-out</li> </ul>
<p>Strengthened Governance in Investment selection, design, procurement, execution and O&amp;M through Systematization of processes that provide for (i) “checks and balances” throughout the various processes; (ii) transparent and detailed instructions on all processes; (iii) aggregation of data from various processes into a common data set; (iv) Systematic data analysis and timely reporting for management oversight and for public disclosure; (v) grievance redressal</p>	<ul style="list-style-type: none"> <li>➤ Specific Operational Manuals available on all PRDP related activities</li> <li>➤ Legal covenant: By January 31, 2018, update a common set of harmonized criteria, governing inter alia, the selection, implementation, technical design standards, financial and economic analysis, infrastructure and enterprise operations and maintenance, safeguard policies, monitoring and evaluation as used for the project, for the development sub-projects supported by the Department of Agriculture.</li> <li>➤ Geo-tagging and geo-mapping used for all investments supported by PRDP</li> <li>➤ Web based platform for use by PRDP implementers and public information</li> <li>➤ MIS system for PRDP linked to the DA wide MIS system.</li> <li>➤ Comprehensive six-monthly progress reporting</li> <li>➤ Document Tracking system</li> <li>➤ Grievance Redress system</li> <li>➤ Stakeholder monitoring and feedback on DA supported investments.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Detailed Operational Manuals are available and on-line.</li> <li>✓ Harmonized Manual for use across the DA was issued in 2015 establishing the procedures and requirements for infrastructure investments in partnership with LGUs. Harmonized manual for enterprise support under preparation.</li> <li>✓ Geo-tagging and geo-mapping institutionalized and being used effectively. All sub-projects need to be signed-off by the responsible engineer that geo-tagged information pertaining to that sub-project area has been reviewed and that there are no overlaps or other issues with other development in the same area.</li> <li>✓ Comprehensive web-based platform is operational and regularly updated (<a href="http://www.daprdp.net/">http://www.daprdp.net/</a>)</li> <li>✓ Effective MIS (web-based M&amp;E system) is operational. The system was developed in-house and links with the Operation MIS system, also developed under PRDP, which is used across all DA Bureaus and attached agencies.</li> <li>✓ Comprehensive reports are being consistently prepared.</li> <li>✓ Document Tracking system is operational and service standards have been established.</li> <li>✓ A Grievance Redress system has been established and is operating effectively.</li> <li>✓ Citizens Monitoring of project activities is practiced and being rolled-out.</li> </ul>
<p>Rationalization of the Government System for provision of Rural Roads with the DA designated as the lead Agency responsible for ensuring rural farm-to-market, all weather access</p>	<ul style="list-style-type: none"> <li>➤ All funding provided through the GAA to the DA for Rural Roads to be implemented following the protocols established for PRDP in partnership with LGUs in accordance with the Local Government Code.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Proposals currently under development.</li> </ul>



20. **Financial Management.** The current rating for Financial Management is Moderately Satisfactory. The financial management system rating for the project was retained at moderately satisfactory due to some non-compliance with the financial covenants which includes the delay in submission of the IFR and withdrawal applications. While there is adequate FM staffing at the NPCO, PSO and RPCO levels and FM systems are in place to ensure that funds are used for the intended purpose, there is a need to emphasize the compliance with the agreed timelines in the submission of the financial reports from the RPCOs to PSOs and to the NPCO.

21. During the appraisal mission, the following financial management arrangements for the additional financing, that are implemented under the original loan, were confirmed: (i) maintenance of separate designated accounts and books of accounts; (ii) submission of quarterly interim financial reports 60 days after the end of each quarter; and (iii) submission of annual audited project financial statements. The same funds flow arrangement will also be adopted under the AF. There are no overdue audit reports from the Project.

22. Actions currently being undertaken by the DA PRDP team to further improve financial management performance include the following: (i) orientation on financial management and procurement of COA auditors (NPCO, PSO, RPCO, and LGU levels) to ensure uniformity of application of guidelines and procedures throughout the project and (ii) revision of the financial management manual to simplify funds flow requirements to the LGUs consistent with the post-audit mandate of COA.

23. **Procurement.** Procurement implementation is generally satisfactory. The main observations are: (i) processing of procurement and award of contracts continue to be generally in compliance with the provisions of the Loan Agreement. Marked improvement in the processing time has been observed however it is still taking more than three months from bid opening to award of contract; (ii) failure of procurement process resulting in rebidding has been reduced, but continues to occur; (iii) procurement under I-Reap is picking up but remains to be slow; (iv) redundant and unnecessary processes contribute to the delays in the procurement implementation; (v) irrelevant and/or non-appropriate requirements in the bidding documents makes the procurement less efficient and economical. The AF will apply the Bank's Procurement and Consultants Guidelines (dated January 2011) in line with the original project.

24. **Increased Prior Review Thresholds.** The Bank as part of its strategic vision has increased the overall thresholds for procurement prior review thresholds, based on the risks, for the projects. The updated Procurement Plan has reflected this increase in prior review thresholds for PRDP. Likewise, internally, the project has increased the delegated prior review thresholds for the clusters except for Mindanao (which would require further review by NPCO in consultation with the Bank). With this increase delegation, the focus will be shifted to post-procurement review and the project is expected to increase the frequency and percentage of sample contracts for their own post-procurement review.

25. Overall, fiduciary risks have been rated as Substantial considering the nationwide coverage of the project and the large number of sub-projects that make monitoring of fiduciary aspects complex.



**Annex 3: Revised Project Costs and Financing**  
**PHILIPPINES: Additional Financing for the Philippine Rural Development Project**

1. The overall project cost with the proposed Additional Financing of US\$170 million would increase by 28.7% to US\$884.09 million (including front-end fee) with overall IBRD loan financing increasing to US\$671.25 million (76% of total project cost). GEF financing would remain unchanged and amount to 0.8% of the revised project cost. Counterpart funding amounting to US\$ 205.84 million (30% of the revised project cost) would be financed by Government (DA and the participating LGUs). Retroactive financing of around US\$ 30 million (17% of the AF) may be requested for eligible expenditures incurred six months prior to loan effectiveness. Project costing by component is presented in the following table:

**Table 1: Breakdown of Project Cost by Component**

Project Components	Original Financing and Project Cost (US\$ million)				Proposed Additional Financing and Revised Project Cost (US\$ million)		
	IBRD <sup>a/</sup>	GEF	GOP	Total Project Cost	IBRD	GOP	Total Project Cost
<b>Component 1: Local and National Level Planning</b>	14.29	1.40	3.57	19.27	0	0	19.27
<b>Component 2: Infrastructure Development</b>	393.70		90.43	484.13	148.00	37.00	669.13
<b>Component 3: Enterprise Development</b>	68.00	5.60	63.34	136.94	0	0	136.94
<b>Component 4: Project Implementation Support</b>	23.99		6.00	29.99	22.00	5.50	57.49
<b>Total</b>	500.00	7.00	163.34	670.34	170.00	42.50	882.84
<b>Total</b>	<b>501.25</b>	<b>7.00</b>	<b>163.34</b>	<b>671.59</b>	<b>170.00</b>	<b>42.50</b>	<b>882.84</b>

a/ Figures include a reallocation of US\$ 32 million from component 3 to Component 2 (completed)

**Investment and Project Costs Associated with the Additional Financing**

2. Component 2: Expanded Infrastructure Development, US\$ 148 million (87% of the AF). The specific sub-projects for financing through the AF is based on prioritization criteria discussed below. Investments would largely include FMRs, irrigation, PWS, post-harvest facilities (see also Annex 6 that provides a preliminary list of sub-projects and current split of infrastructure sub-projects). The final proposed list of sub-projects will be completed prior to effectiveness based on the final agreed prioritization criteria and demands expressed at that time.

Component 4: Project Support, US\$22 million (13% of the AF). The AF would both provide for the shortfall in funding allocated to this component for capacity strengthening, and project oversight, while also supporting further steps to expand and consolidate the institutional reforms and their mainstreaming across DA units and agencies as, described above. The shortfall in financing for project implementation under the project stems from Government's initial decision to set this at just four percent of project costs, contrary to Bank appraisal recommendations. This has subsequently proven to be inadequate and a request for further funding for project support has been included in Government's US\$450 million request for Additional Financing. The AF would bring the level of overall project support to 6.6 percent of total project costs.

**Table 2. Projected Costs and Financing Requirements (2017-2021) – Original and AF**

Project Components	Original Financing and Project Cost (US\$ million)				Reallocation (US\$ million)a\		Proposed Additional Financing for period 2017-2018 (US\$ million)			Total (Reallocated + AF) (US\$ million)	
	IBRD	GEF	GOP	Sub Total Cost	IBRD	Total	IBRD	GOP	Sub Total Cost	IBRD	Total
Local and National Level Planning	14.29	1.40	3.57	19.27	14.29	19.27	0	0	0	14.29	19.27
Infrastructure Development	361.70	0	90.43	452.13	393.70	484.13	148.00 <sup>b\</sup>	37.00	185.00	541.70	669.13
Enterprise Development	100.00	5.60	63.34	168.94	68.00	136.94	0	0	0	68.00	136.94
Project Implementation Support	23.99		6.00	29.99	23.99	29.99	22.00 <sup>\</sup>	5.50	27.50	45.99	57.49
<b>Total Costs</b>	<b>501.25</b>	<b>7.00</b>	<b>163.34</b>	<b>671.59</b>	<b>501.25</b>	<b>671.59</b>	<b>170.00</b>	<b>42.50</b>	<b>212.50</b>	<b>671.25</b>	<b>884.08</b>

a\ The reallocation did not re-compute changes to GOP counterpart funds for component 2 and 3 to maintain integrity with original financing table.

b\ Calculation based on DA's estimated pipeline and processing in support of the proposed AF for 2017-2018.

**Table 3. Projected further additional financing needs for 2019 – 2021 (US\$ million)**

Project Components	Additional Financing (tranche 1) covering financing needs for 2017/2018		Projected Additional Financing Needs (2019-21)		Total Financing Needs identified	
	IBRD	GOP	IBRD	GOP	IBRD	GOPa\
Local and National Level Planning	0	0		0		
Infrastructure Development	148.0	37.0	243.5	60.88	391.5	97.88
Enterprise Development	0	0		0		
Project Implementation Support	22.0	5.5	36.5	9.13	58.5	14.63
<b>Total</b>	<b>170.0</b>	<b>42.5</b>	<b>280.0</b>	<b>70.01</b>	<b>450.0</b>	<b>112.51</b>

a\ Includes LGU contribution

**Annex 4: Economic and Financial Analysis**  
**PHILIPPINES: Additional Financing for the Philippine Rural Development Project**

**A. Introduction**

1. An Economic and Financial Analysis (EFA) was conducted to assess the economic viability of the project, as well as assess the project's impacts on the beneficiaries under the AF. The unit of analyses uses quantifiable benefits at the level of the beneficiary households and individual farmers. It incorporates project costs and assumptions where relevant from the original project financing and from lessons learned in ongoing implementation. The Rapid Appraisal of Emerging Benefits (RAEB) for completed rural infrastructure sub-projects found several social benefits which are not included in the EFA as they are not easily quantifiable. A sensitivity analysis was also undertaken to determine the impact of changes in key parameters influencing the project's economic viability due to several risks identified.

**B. Project Beneficiaries and Area**

2. The project continues to target small-scale agricultural, livestock and fishery producers nationwide. An indeterminate number of indirect project beneficiaries are expected to benefit from the rural infrastructure investments. The target investment areas continue to be identified through the expanded Vulnerability and Suitability Assessment (eVSA) and Value Chain Analysis (VCA) to unlock the productive and market potential of the producers. The project benefits through the infrastructure development components will come from investments in: (i) new FMR construction; (ii) FMR rehabilitation; (iii) PWS construction; (vi) PWS rehabilitation; (v) irrigation system construction; (vi) irrigation system rehabilitation; and (vii) construction of other infrastructures.

**C. Project Benefits**

3. Through the rural infrastructure investments, agricultural, livestock and fishery producers are expected to enhance their productivity and incomes by unleashing the identified bottlenecks and capitalizing on the existing opportunities along the value chain. The project's benefits are expected to be mainly derived from FMR construction and rehabilitation as they comprise the majority of infrastructure investments under the AF. Therefore, the anticipated benefits would result from savings in vehicle operation costs, saving in agricultural output hauling costs, savings in hauling cost of production inputs, savings in travel time of commuters, benefits from new agricultural areas (production expansion), and savings in the reduction of transport losses. The benefits of irrigation investments would result from increase in cropping intensity, and increase in yield of irrigated areas. The benefits of PWS investments are likely to result from a reduction in medical expenses, reduction in morbidity and mortality incidence. For the other infrastructure (i.e. warehouse with solar dryer, the anticipated benefits include increase marketable value of produce, savings in the reduction of transport losses, and savings in output hauling cost.

4. Part of the AF is also allocated to the I-Support component. Innovations such as geo-tagging are expected to generate cost savings in rural infrastructure investments resulting from increased transparency in investment practices.

**Table 1: Rural Infrastructure Investment Beneficiaries and Benefits**

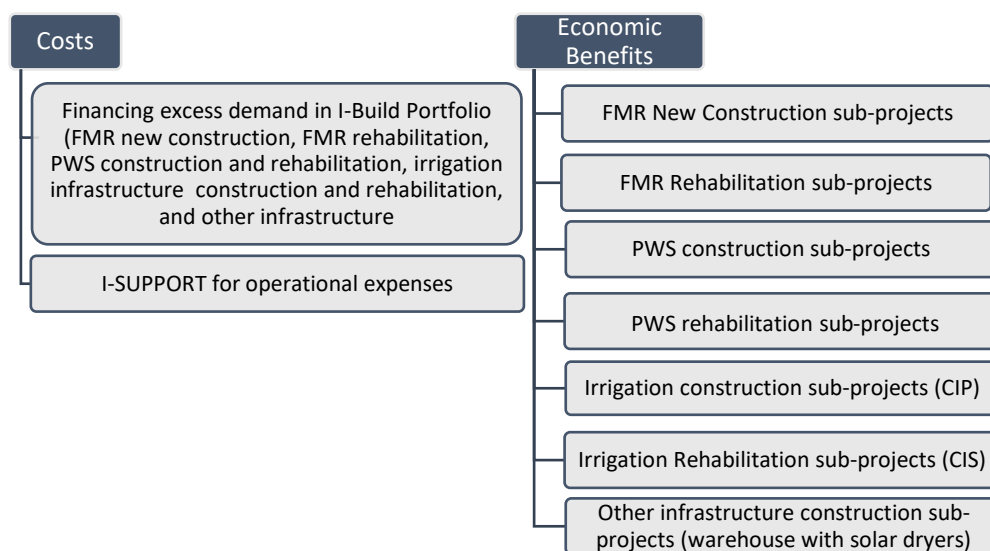
<b>Infrastructure Investment</b>	<b>Unit</b>	<b>Number</b>	<b>Expected Benefits</b>
Construction of new FMRS	km	66.9	Savings in vehicle operation costs Savings in agricultural output hauling costs

Infrastructure Investment	Unit	Number	Expected Benefits
Rehabilitation of FMRs	km	601.7	Savings in hauling cost of production inputs Savings in travel time of commuters Benefits from new agricultural areas Savings in transport losses
Construction of Irrigation system (CIP)	ha	714.4	Increase in cropping intensity Increase in yield of irrigated farms
Rehabilitation of Irrigation system (CIS)	ha	4,385.0	
Construction of PWS	household	4,524.6	Reduction in medical expenses Reduction in morbidity incidence Reduction in mortality incidence
Rehabilitation of PWS	household	7,186.1	
Construction of Other Infrastructure	Square meter	42,977.5	Benefits from increase marketable value of produce Savings in the reduction of transport losses Savings in output hauling cost.

## D. Key Assumptions

5. The AF would fund excess demand for rural infrastructure subprojects in the current pipeline. Therefore, an EFA was undertaken reflecting the economic and financial viability of these sub-projects. The specific sub-projects to be financed under the AF would be selected based on the I-Build prioritization criteria to meet the increased demand for rural infrastructure sub-projects from the LGUs in addition to the already identified and approved sub-projects to be funded under the AF as illustrated in Figure 1.

**Figure 1. General model for the EFA of the Additional Financing**



6. Financial costs were converted to economic costs using appropriate methodologies and conversion factors. Such conversion methodologies included shadow pricing for foreign components and shadow wage rate pricing for unskilled labor. Cost items which have a significant foreign exchange component were shadow priced using the Foreign Exchange Premium Factor of 1.2 to reflect its real value to the economy, while unskilled labor expenses were subjected to the Shadow Wage Rate Factor of 0.6 for the value of unskilled labor to the economy as set by the National Economic and Development Authority (NEDA). In the analysis, costs were expressed in 2016 current prices while the sensitivity analysis simulates the effect of future price changes to the project's viability.

7. Data used in the analysis of costs and benefits were obtained from various sources: PRDP's database on economic data from the feasibility studies of all 2014-2016 approved infrastructure sub-projects, approved VCA's, and relevant national statistics. These streams of benefits considered in the analysis capture the direct impacts of FMR sub-projects to the local community. The period of analysis for FMRs, CISs and Other Infrastructures considered the total useable lifespan of FMRs, assumed to be 20 years (10 years for PWSs). Overall, all estimated costs and projected benefits were analyzed over a 20-year period.

8. **Infrastructure Models.** The economic viability of the different infrastructure sub-projects was assessed using the benefit-cost analysis model. The cost estimates for each type of infrastructure sub-projects was based from the cost standards of the I-Build sub-projects that were approved under the PRDP. For the benefit stream, the assumptions are based on the PRDP's database on economic data from the feasibility studies of 2014-2016 approved I-Build sub-projects. National databases such as the Philippine Statistics Authorities' Bureau of Agricultural Statistics and the National Statistics Office were also tapped for information on national statistics. Quantities (physical targets) per sub-project were based on the rounded-off average unit cost of the approved sub-projects under the I-Build component:

Costing per unit by sub-project	Unit	Unit Cost (PhP)
<b>FMRs</b>		
New construction and rehabilitation	per km	11,000,000.00
<b>CIS/CIP</b>		
New construction	per ha	220,000.00
Rehabilitation	per ha	120,000.00
<b>PWS</b>		
New construction	per HH	18,000.00
Rehabilitation	per HH	17,000.00
<b>Other Infrastructure</b>		
	per square meter (warehouse)	25,000.00
	per square meter (solar dryer)	2,700.00

9. For the estimation of expected number of beneficiaries, the following methodologies were used:

- i) For FMR, the estimated number of beneficiaries was derived from the PRDP's database of number of beneficiaries of the approved subprojects. The average number of beneficiaries per kilometer was calculated and multiplied to the estimated number of kilometers to targeted under the AF. A total of 467,336 individuals are expected to benefit from the FMR sub-projects.

Sub-project Type	Estimated number of beneficiaries
Construction of FMRs	46,734
Rehabilitation of FMRs	420,603
<b>Total</b>	<b>467,336</b>

- ii) For PWS, the estimated number of beneficiaries was derived from the cost estimate of I-Build. Based from the projection, a total of 11,711 households are expected to benefit from the project.

Sub-project Type	Estimated number of beneficiaries
Construction of PWS	4,525
Rehabilitation of PWS	7,186
<b>Total</b>	<b>11,711</b>

## E. Economic Analysis

10. The cost-benefit analysis indicates that the additional financing is economically viable with an overall economic internal rate of return (EIRR) of 23.1%, a net present value (NPV) of PhP 3,635,650,406.03 at 15% discount rate, and a Benefit-Cost Ratio (BCR) of 1.45. This implies that there is a return of economic benefit of PhP 1.45 for every Peso investment of the project.

**Table 3: Economic Viability and Sensitivity Analysis of Infrastructure Investments**

Infrastructure Investment	NPV (000'PhP)	EIRR (%)	BCR	Sensitivity Analysis								
				10 % increase in cost			10% Decrease in benefits			1-year delay in benefits		
				(000'PhP)	EIRR (%)	BCR	(000'PhP)	EIRR (%)	BCR	(000'PhP)	EIRR (%)	BCR
Construction of new FMRs	292,187	23.0%	1.46	229,292	21%	1.33	200,073	21%	1.32	159,963	19%	1.25
Rehabilitation of FMRs	2,898,384	23.8%	1.51	2,332,327	22%	1.37	1,204,288	21%	1.36	1,670,255	20%	1.30
Construction of new PWSs	41,482	36.1%	1.42	31,698	30%	1.29	27,550	29%	1.28	15,483	21%	1.16
Rehabilitation of PWSs	71,732	39.3%	1.48	56,778	33%	1.35	49,604	32%	1.33	30,439	23%	1.20
Construction of new irrigation systems (CIPs)	75,989	25.7%	1.54	61,997	23%	1.4	43,603	23%	1.39	45,368	20%	1.32
Rehabilitation of irrigation systems (CISs)	819,372	47.8%	2.62	768,789	43%	2.38	686,852	43%	2.36	631,426	35%	2.25
Construction of other infrastructure	183,035	30.5%	1.79	159,789	27%	1.62	141,485	27%	1.61	124,192	24%	1.53

**Table 4. Overall PRDP AF and PRDP AF + Current Budget Economic Feasibility Indicators**

Component	IRR	NPV @ 15% (PhP)	BCR
Scenario 1: PRDP Additional Financing	23.1%	3,635,650,406.03	1.45
Scenario 2: PRDP AF + original Feasibility Study PRDP	30.9%	6,770,481,971.97	1.28
Original PRDP Budget Feasibility Study	38.5%	4,691,787,052.49	1.24

11. Sensitivity analysis assesses risks by identifying the variables that most influence a project's net benefits and quantifying the extent of their influence on the project's economic feasibility. Several sensitivity scenarios were run (i.e. increase in cost of 5%, 10%, 15%, 20%, 30% and decrease in benefits of 5%, 10%, 15%, 20%, 30%) to test the viability of the project. In both scenarios, results show that the project can withstand increases in project costs of around 30% and decrease in benefits of around 30%. Significant changes in costs and benefits above the identified levels may render the project economically infeasible. Tables 5.1 and 5.2 summarize the sensitivity analysis for the two scenarios.

12. Additional analyses were run to depict possible worst-case scenarios for the two models. Such scenarios included simultaneous occurrences of increase in costs, decrease in benefits and 1-2 years' delay in realization of project benefits. Worst-case sensitivity scenarios are shown in Tables 5.3 and 5.4. Results show that the PRDP AF Scenario, under worst case scenarios, could still withstand increases in costs and decreases in benefits of up to 10% and a 2-year delay in benefits. Meanwhile, the PRDP AF + the original feasibility study (FS) scenario would still be feasible when increases in costs and decreases in benefits remain at the 5% and a 1-year delay in benefits. These scenarios imply that the additional financing is not sensitive to price changes and benefit reductions. It will remain economically viable under poor economic conditions, sufficiently justifying placing investments in its pipelined rural infrastructure sub-projects.

**Table 5.1 Scenario 1: Results of the Sensitivity Analysis for Overall PRDP AF**

Sensitivity Scenarios	IRR	NPV @ 15% (PhP)	BCR
Base Scenario	23.1%	3,635,650,406	1.45
5% Cost Increase	21.9%	3,227,566,434	1.38
10% Cost Increase	20.8%	2,819,482,462	1.31
15% Cost Increase	19.8%	2,411,398,489	1.26
20% Cost Increase	18.8%	2,003,314,517	1.20
30% Cost Increase	17.1%	1,187,146,573	1.11
5% Benefits Decrease	21.8%	3,045,783,914	1.37
10% Benefits Decrease	20.6%	2,455,917,421	1.30
15% Benefits Decrease	19.3%	1,866,050,929	1.23
20% Benefits Decrease	17.9%	1,276,184,436	1.16
30% Benefits Decrease	15.2%	96,451,451	1.01
1 Year Delay of Benefits	21.8%	3,192,637,274	1.39

**Table 5.2 Scenario 2: Results of Sensitivity Analysis for Overall PRDP AF+FS**

Sensitivity Scenarios	IRR	NPV @ 15% (PhP)	BCR
Base Scenario	30.9%	6,770,481,972	1.28
5% Cost Increase	26.3%	5,561,039,821	1.22
10% Cost Increase	23.0%	4,351,597,669	1.16
15% Cost Increase	20.0%	3,142,155,518	1.11
20% Cost Increase	18.0%	1,932,713,366	1.07
30% Cost Increase	14.0%	-486,170,936	0.98
5% Benefits Decrease	26.0%	5,222,515,722	1.22
10% Benefits Decrease	22.0%	3,674,549,472	1.15
15% Benefits Decrease	19.0%	2,126,583,222	1.09
20% Benefits Decrease	16.0%	578,616,972	1.02
30% Benefits Decrease	11.0%	-2,517,315,528	0.90
1 Year Delay of Benefits	23.0%	4,919,593,920	1.20

**Table 5.3 Scenario 1.1: Results of the Worst-case Sensitivity Analysis for Overall PRDP AF**

Sensitivity Scenarios	IRR	NPV @ 15% (PhP)	BCR
1 year delayed + costs +5% + benefits -5%	19.6%	2,216,837,466	1.26
1 year delayed + costs +10% + benefits -10%	17.5%	1,241,037,658	1.14
1 year delayed + costs +20% + benefits -20%	13.6%	-710,561,959	0.93
2 years delayed + costs +5% + benefits -5%	17.1%	1,122,238,293	1.13
2 years delayed + costs +10% + benefits -10%	15.4%	204,048,967	1.02
2 years delayed + costs +15% + benefits -15%	13.7%	-714,140,358	0.92

**Table 5.4 Scenario 2.1: Results of the Worst-case Sensitivity Analysis for Overall PRDP AF+FS**

Sensitivity Scenarios	IRR	NPV @ 15% (PhP)	BCR
1 year delayed + costs +5% + benefits -5%	18.3%	2,254,729,921	1.09
1 year delayed + costs +10% + benefits -10%	14.5%	-410,134,078	0.98
2 years delayed + costs +5% + benefits -5%	13.8%	-1,092,810,541	0.96
2 years delayed + costs +10% + benefits -10%	11.1%	-3,581,488,200	0.87

**Annex 5: Emerging Project Benefits**  
**PHILIPPINES: Additional Financing for the Philippine Rural Development Project**

**Background**

1. The analysis of Economic and Financial Benefits of the project (Annex 4) have been substantially informed by the emerging results that have come from Rapid Appraisals of Emerging Benefits (RAEBs) undertaken for sub-projects already completed during the first three years of implementing PRDP. Some 14 completed infrastructure sub-projects have been reviewed, encompassing provinces from all areas of the country i.e. Luzon (Isabella, Oriental Mindoro), Visayas (Bohol and Southern Leyte), and Mindanao (Sultan Kudarat and South Cotabato). RAEB impact assessments have also been done for two completed enterprise sub-projects in Oriental Mindoro and South Cotabato. The total investment costs for the completed infrastructure and enterprise sub-projects amount to PhP 362.78 million and PhP 46.87 million, respectively. While the sample size of the sub-projects to date is limited with 39,378 and 682 direct beneficiaries, respectively, the RAEB assessments indicate substantial benefits in line with, or exceeding, the performance indicators for the project in the Results Framework.

**Methodology**

2. Household surveys were used as the main source of primary data for the RAEB, with complementary data obtained through (i) secondary data; (ii) Focus Group Discussions (FGD); (iii) Key Informant Interviews (KII); (iv) spot interviews; and (v) applied geo-tagging. A stratified random sampling technique was adopted to determine the survey respondents for the household survey, which was also designed to generate information for the “with” and “without” project” situations. Farmer/fisherfolk respondents accessing FMR sub-projects were residents drawn within the 2.5 km road influence area (RIA). At least thirty beneficiary households were selected as respondents of the household survey in each Barangay along the RIA. For enterprise sub-projects, a similar number of Proponent Groups (PGs) members were also randomly selected from the total list of active PG members. These respondents were residents or with production areas located at the beginning, middle and end sections of the FMR.

3. To capture FMR impacts, the evaluation focused on the following indicators: (a) household income; (b) travel time; (c) hauling cost; (d) post-harvest losses; (e) traffic count; and (f) expansion areas. For interventions on agricultural enterprise (I-Reap), the assessment focused mainly on: (i) enhanced productivity due to formalized marketing agreements; (ii) increased on-farm income; and (iii) participation of women in managing enterprises. FGDs were used to verify the results of the household survey, as well as to capture the expectations of the respondents about the PRDP sub-projects and the extent of awareness about sub-project implementation. The FGD participants were key Barangay officials, heads of farmers/fisherfolk’ cooperatives, and traders.

4. Key Informant Interview (KII) were undertaken to further investigate the project’s performance not covered by the household survey. Issues tackled by the KII were; existence of an operations and maintenance (O&M) plan, budget allocation to implement the plan and supporting LGU ordinance for the budget allocation. A listing of the sub-projects subjected to the RAEB is show in Table 1.



**Table 1. Infrastructure and Enterprise Sub-projects analyzed through RAEB Assessments**

Province	Municipality	Sub-project Name	Sub-Project Cost (PhP m)
Isabela	Malig	Rehabilitation/Construction of Olango - Siempre Viva - Trinidad - Manano FMR	62.45
Isabela	Cabagan	Rehabilitation/Improvement of Magassi - Union - Camasi FMR	40.20
Oriental Mindoro	Calapan	Concreting of Bagong Silang-Macatoc FMR	20.46
Bohol	Sagbayan	Rehabilitation of San Agustin - Canmaya Diot FMR	48.19
Southern Leyte	Sogod	Rehabilitation/Concreting of the Suba-Kanangkaan-San Vicente-San Juan FMR	30.39
Sultan Kudarat	Isulan	Rehabilitation of Purok 2 - San Martin FMR	19.08
Sultan Kudarat	Isulan	Rehabilitation of Tayugo - Paladong FMR	19.48
Sultan Kudarat	Isulan	Rehabilitation of Bual - Talitay FMR	17.84
South Cotabato	Tupi	Concreting of Crossing Rubber-Lunen FMR	41.85
Sultan Kudarat	Lambayong	Construction of E. Peralta to Asuncion FMR	13.17
Sultan Kudarat	Lambayong	Rehabilitation of L. Aserto to Rodrigo FMR	17.54
Sultan Kudarat	Lambayong	Rehabilitation of Maskulado Abellera to ARC 2 FMR	15.45
Sultan Kudarat	Lambayong	Construction of Lambay Sambilan to Balikakao FMR	12.38
South Cotabato	Tampakan	Construction of Lampitak (Level 2) PWS	4.30
South Cotabato	Polomolok	Production of Cassava Granules and Marketing	34.83
Oriental Mindoro	Calapan	Oriental Mindoro Calamansi Trading Center	12.04

## Impacts

5. **Farm-to-Market Roads:** Users of the 13 FMRs assessed reported an increase in their average household income levels by nearly 60% i.e. from PhP 89,234 to PhP 142,603. This increase does not distinguish the income source i.e. on-farm income, off-farm income, and non-farm income, although household on-farm income constitutes nearly 72% of total household income. Farmers in FMR sites reported an increase of nearly 79% in their on-farm income level. Other emerging impacts from FMRs include: (i) a reduction in travel time from farm to market by 61% i.e. from 16 to 6 minutes every kilometer; (ii) a reduction in hauling costs of agricultural outputs by 45% i.e. from PhP22/sack to PhP12/sack; (iii) a reduction in hauling cost of production inputs such as seedlings and fertilizer by 22% and 14%, respectively; (iv) substantial increase (more than double) in traffic density by 112% (from 156 vehicles to 331 vehicles as a result of the FMR sub-project).

6. FMR sub-projects indirect benefits include increased land rental activities. In one example, additional 20 hectares of land (from 40 to 60 hectares) were leased from farmers by DOLE Philippines. In this case, land rental income for farmers increased from PhP 16,000 to PhP18,000. Some farmers were also able to find more competitive prices for their commodities due to enhanced road access to markets or increased the number of products now being marketed. Other benefits of the FMRs included increased school attendance and higher levels of enrollment, improved peace and order in the community, faster response to medical emergencies.

7. **Potable Water System (PWS).** For assessed PWS, the “without” project situation showed a shortage of potable drinking water due to leaking pipes and a high incidence of water-borne diseases. Through the support provided under the project for PWS, residents reported a reduction in time to fetch water from 25 to 19 minutes. There was also a reduction in average distance of tap stands from residences

18 to 15 meters. Increased engagement of residents in gardening, planting of ornamental plants, and backyard activities such as pig raising were also reported.

8. Enterprise Support for Production of Cassava Granules and Marketing. Supported enterprise activities encompassed assistance for participating cooperatives to improve cassava production and the formulation of granules for animal feed millers in South Cotabato. Results of the household survey showed (i) a 31% increase in volume of production of cassava tubers; (ii) an increased average selling price of cassava tubers from P2.36 per kg to P2.58 per kg; (iii) a 47% increase in farm income from cassava production area; (iv) a 25% increase in new cassava production areas; and (v) an increase in aggregate household income by nearly 27%.

9. Enterprise support for the Oriental Mindoro Trading Center. Supported enterprise activities provided for more efficient marketing for calamansi farmers, especially to counter low prices due to oversupply during the peak season, along with losses resulting from typhoons and pest infestations. Impacts as captured by RAEB include (i) a 78% increase in volume of production; (ii) higher average selling price of calamansi from P7.3 per kg to P9.3 per kg; (iii) increase in farm income by 115%; (iv) expansion of calamansi production areas from 97 hectares to 113 hectares; and (v) an aggregate increase in household income by nearly 90%.

**Annex 6: Summary of Indicative Sub-projects**  
**PHILIPPINES: Additional Financing for the Philippine Rural Development Project**

**Breakdown by Type of Sub-project** (based on tentative pipeline)

Type	Number of SPs	Tentative Costs (PhP million)
Farm to Market Roads	84	8,475.96
FMR with Bridge	10	1,539.92
Communal Irrigation System	9	515.36
Potable Water Supply (Level 2)	4	171.35
Others (e.g. warehouse with solar dryer, tramline, greenhouse and compost facility)	30	367.64
<b>Total</b>	<b>137</b>	<b>11,070.23</b>

**Breakdown by Area**

Pipeline by PSO	Number	Tentative Costs (PhP million)	%
North Luzon (Luzon A)	36	1,979.73	18
South Luzon (Luzon B)	32	3,352.45	30
Visayas	24	2,087.11	19
Mindanao	45	3,650.95	33
<b>Total</b>	<b>137</b>	<b>11,070.23</b>	<b>100</b>

**Summary and Status of Sub-projects under ongoing PRDP Funding**

Project Cluster	Approved Sub-projects (SPs)		Status of Approved Rural Infrastructure Sub-projects									
			Pre-Construction Phase				Construction Phase					
	# SPs	Total Cost (PhP Million)	With NOL1		With NOL2		Under Implementation				Completed	
			# SPs	Total Cost (PhP Million)	# SPs	Total Cost (PhP Million)	Under 50% Accomplishment		Above 50% Accomplishment		# SPs	Total Cost (PhP Million)
							# SPs	Total Cost (PhP Million)	# SPs	Total Cost (PhP Million)		
1 Luzon A Cluster	125	4,916.66	34	766.45	8	60.06	60	3,073.81	11	749.34	12	267.00
2 Luzon B Cluster	49	3,827.26	19	1,444.80	5	347.53	13	1,357.42	9	595.44	3	82.07
3 Visayas Cluster	44	3,151.05	14	630.68	6	287.32	13	1,231.00	10	953.86	1	48.19
4 Mindanao Cluster	170	7,810.65	52	1,457.08	12	915.47	36	2,974.21	27	1,316.58	43	1,147.31
<b>Total</b>	<b>388</b>	<b>19,705.62</b> *	<b>119</b>	<b>4,299.00</b>	<b>31</b>	<b>1,610.39</b>	<b>122</b>	<b>8,636.44</b>	<b>57</b>	<b>3,615.23</b>	<b>59</b>	<b>1,544.56</b>

\* PhP 19.7 billion represents the total allocation under Component 2: Infrastructure Development